

Romão Beatus Paulo

I 11

Inglês 11.º Classe



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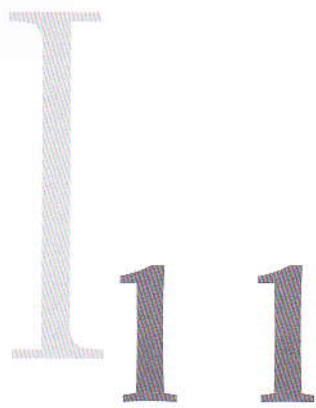

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Introduction

This textbook is intended for English Language students in Grade 11. The material has been specially prepared following the official grade 11 syllabus for English which was introduced in 2001. This syllabus was compiled to deal with the needs of people learning what has become a universal language.

The textbook consists of a series of 11 units, each dealing with an issue of importance in the life of any 21st century student. But these topics are especially motivating as they are always related to aspects of the local culture, thus bringing the material to life for the students. The structure of the units has been developed to expose the students to a progression of tasks, which include practice in the academic skills needed in their school life, the vocabulary related to the topic and the grammar that they need to develop at this level.

The academic skills tasks are made up of a sequence of activities aimed at developing the students' reading, writing, listening and speaking. They include such skills as making notes from written or spoken texts, labeling diagrams, completing tables, preparing posters, and holding debates. The listening takes the form of texts that can be read by the teacher. The students are exposed to a wide variety of input, such as lectures, literary texts, newspaper articles, reports, and diagrams. At the same time they are encouraged to contribute their own ideas on the subject. In addition to this, there are many different vocabulary and grammar exercises to help the students learn the language associated with each of the skills and topics. These exercises follow a graded syllabus becoming increasingly difficult as the students progress through the course, each language task building on what has been studied before.

Throughout the course, there are great opportunities for pairwork and groupwork to maximize the involvement of the students both in putting forward their ideas and in more controlled language practice. They are asked to read dialogues, to participate in discussions and debates, and to take part in role plays.

The overall aim of the course is to produce students who are both fluent and accurate in their use of English but who also have the tools to communicate on current important world issues. At the same time we hope that both teachers and students will have fun in the process of learning together.



UNIT 1

Natural Resources



PRE - FOCUS

What does the term "natural resources" mean? Talk to your partner and make a list of examples of natural resources, both in Mozambique and in other countries. Then write a definition. Compare your definition with the others in the class.

Task Cycle 1: Natural Resources**1.1 Discussion: General Knowledge Quiz on Natural Resources**

These statements are about natural resources. Read the statements and discuss with a partner whether they are True or False. Give reasons for your opinions. Your discussion must be all in English!

1. Over half of Mozambique is covered with trees.
2. Saudi Arabia produces more oil than Russia.
3. There is more gold in Africa than in any other continent.
4. Gold normally costs twice as much as platinum.
5. There are reserves of natural gas in Mozambique.
6. The world's largest supply of diamonds is located in Africa.
7. Taiwan and Korea are rich countries because they have more natural resources than most other countries.
8. Only about 10% of the Earth's surface has enough soil to be useful for farming.
9. One of Mozambique's richest natural resources is the sea.
10. Oil is not produced in any European country.

1.2 Reading and Speaking: Dialogue

This is a discussion between two people. They are doing the same quiz that you have just done. Read the dialogue and see if they reached the same conclusions as you. Did they give similar reasons for their answers?

Pedro: OK, let's read them one by one, shall we?

João: OK. What about the first one? Over half of Mozambique is covered with trees. I don't really know but it seems likely. What do you think?

Pedro: I'm not so sure. It seems rather a lot to me. I'd be inclined to say "false".

João: OK, I'll go along with that. What about number two?

Pedro: That must be true, don't you think?

João: Definitely, I agree. But I think number three is false. What about you?

Pedro: Oh, no. I don't agree with you there.

João: What? Is there more gold in Africa than in America for example?

Pedro: Yes, absolutely.

João: OK then. I suppose you're right. What about four? Does gold cost more than platinum?

Pedro: No, platinum is more valuable than gold. A lot more.
 João: Are you really sure about that? Shall we ask Miguel?
 Pedro: No, we don't need to. I'm absolutely positive.
 João: All right then. Number five. Are there reserves of natural gas in Mozambique? I really don't know.
 Pedro: Yes, I'm fairly sure there are. So, six. Does Africa have the world's largest supply of diamonds?
 João: Oh, yes. South Africa and so on. Don't you agree?
 Pedro: Yes, we agree about that one! What about seven? "Taiwan and Korea are rich countries because they have a lot of natural resources". Well, it seems to me that that doesn't necessarily follow.
 João: How can a country be rich if it doesn't have natural resources?
 Pedro: Well, it imports resources, and has its own manufacturing industry. I think that's what Taiwan and Korea do.
 João: Mm, I'm not so sure about that.
 Pedro: OK, let's just agree to differ on that one. Number eight.
 João: False. 10% is much too little.
 Pedro: Do you really think so? I think 10% is probably about right.
 João: Do you? OK then. I'm not sure about number nine. Are you?
 Pedro: Well, Mozambique has a long coastline, so I wouldn't be surprised if it was true.
 João: Well, yes, that's true I suppose. OK. Nine is true, and so is ten. Oil is only found in the Middle East, Russia and Texas, isn't it?
 Pedro: No, several European countries produce oil too. There are large oil reserves in the North Sea.
 João: Oh, I didn't know that. So number ten is false?
 Pedro: Yes, definitely!

Which of these two people knows more about natural resources? How many answers do you think they got right?

L3 Language Focus: Opinions and Suggestions

In the dialogue in 1.2, as the two people talk about the natural resources quiz, they agree and disagree with each other, they sometimes ask each other for opinions and suggestions, and they give opinions and suggestions. Read the dialogue again, and identify the expressions they use. Copy the table below and complete it with the expressions you find. Then check in the answers section.

Making a suggestion:	
Asking for an opinion:	
Giving an opinion:	
Agreeing:	
Disagreeing:	

Now read the following dialogue. Two men are trying to find out what's wrong with their car, but unfortunately, they don't seem to know very much about cars, so they agree, disagree, and ask each other for suggestions and opinions. See if you can remember the expressions to complete the dialogue. Don't look back until you have finished!

Edgar: No, it won't start. What shall we do? _____ we call the mechanic?
 Titos: No, I don't _____ so. I think we can try and get it going ourselves, can't we?
 Edgar: Well, I'm not so _____ about that. How do you open the bonnet?
 Titos: Pull that.
 Edgar: Oh, right. Wow! It looks really complicated! _____ call the mechanic,
 _____ we?
 Titos: No, not yet _____ try this thing here. What do you _____?
 Edgar: Mm, I'm not so _____ I think I'd be _____ to just call the mechanic.
 Don't you _____?
 Titos: No, not yet. Look, this wire is loose. _____ put it in that hole there.
 Edgar: Mm, I don't _____ about that. Are you sure?
 Titos: I'm absolutely _____ Here goes (*nothing happens*)... OK, what
 _____ we try now?
 Edgar: It _____ to me that a mechanic might be a good idea.
 Titos: No, no, I don't _____ with you there. _____ shut the bonnet and try
 pushing.
 Edgar: Right, I'll go _____ with that. You push and I'll steer.
 Titos: No, no. You're much stronger. And I've got a bad back.
 Edgar: Well, I _____ you're right. OK, then. (*Tries to push.*) No good. It's too heavy.
 Titos: I know, _____ call a mechanic. What do you _____?
 Edgar: _____! I _____! An excellent idea!

1.4 Language Focus: Pronunciation

Look at the dialogues in 1.2 and 1.3, and read them them aloud in pairs.

1.5 Language Focus: Present Simple Active and Passive

Look at the Natural Resources quiz (1.1) again. Classify the statements into the following groups:

- A. Statements that contain verb to be only...
- B. Statements that contain there is / there are...
- C. Statements that contain Present Simple Active verbs...
- D. Statements that contain Present Simple Passive...

1.6 Language Focus: Question Forms

The parts of the sentences in bold are the answers to questions. Use the interrogative forms of the present simple active or passive to write the questions which give those answers.

- E.g. Where are the company headquarters located?
 The company headquarters are located **in Maputo**.
- E.g. What does George do in the evenings?
 George watches TV **in the evenings**.

1. George's company produces coconut products.
2. Pedro works in an office in Maputo.
3. The products are transported to the coast by rail.
4. There are **three** good roads connecting the city and the coast.
5. Yes, the roads that connect the city and the coast are well-maintained.

Are you sure that you can form questions with the verb *to be*, *there is*, *there are*, present simple active and present simple passive? If you made mistakes in the questions above, try these five.

6. George's company employs **about five hundred** people.
7. Yes, all the documents used by the company are translated into three languages.
8. The documents are sent to the branch offices **by email**.
9. There are **two** airports within reach of the company headquarters.
10. Yes, both airports are suitable for heavy jets.

Task Cycle 2: Applications

2.1 Discussion

Look at the words and phrases in the box below. Discuss with your partner how you can classify them into three groups. A few of the words or phrases might appear in more than one group. Your discussion must be in English only, using the phrases and expressions from Task Cycle 1.

Strong	Asphalt in road-making
Artificial body joints	Transparent
Diamond	Jewellery
Plastics	Pesticides
Body piercings	Light
Abrasive	Surgeons' scalpels
Beautiful	Titanium
Petroleum	Fuel for cars
Propellers of ships	Hard
Spectacle frames	Resistant to corrosion
Made up of hydrogen and carbon	Dentists' drills
Doesn't react with other substances	Made up of molecules of different masses

When everyone has finished, join with another pair and compare your classification systems. Are they the same? If they are different, are they both valid, or is one better than the other?

Finally, choose some of the pairs in the class to stand up and explain how they classified the words and phrases.

Did most people in the class choose the same way of classifying?

2.2 Reading: Scanning

This text is about natural resources and it contains all the words and phrases that you discussed in 2.1. Find them and underline them as quickly as you can. Don't read the text slowly and carefully at this stage; just try to find the terms. This is called "Scanning for Specific Information".

Human beings are becoming more and more clever at finding stocks of natural resources in the world, at extracting, mining or collecting them, and at finding a multitude of different uses and applications for them. Some resources are easy to find and collect, others are more difficult; some, once collected, are "ready to use", others have to be processed, treated in some way, or mixed with other substances before they are useful to us. Clearly, the application of any natural resource depends on its properties. Let's examine three natural resources and see how they differ in these respects.



Titanium, which is found in Mozambique amongst other places, is a light, strong metal. Because of this, it is very good for making spectacle frames, for example, which are light and comfortable, but can take the bad treatment that people often deal out to their glasses. However, it also makes them rather expensive. Another interesting property of titanium is that it is resistant to corrosion. It is almost as resistant as platinum in this respect, and it can resist attacks by acid, chlorine gas, and salt water. This means that it is ideal for use in the propellers of ships, for example, and in components for desalination plants. As well as being corrosion resistant, titanium doesn't react with other substances. It is considered "physiologically inert". This means that it is good for making things that are used in the human body. For example, when it is mixed with certain other metals (an alloy), it can be used in replacement body joints, such as knees and hips. For the same reason, it is often a component of body piercings (ear-rings and so on).

In fact, titanium is not often used in its pure form. 95% of titanium is consumed in the form of titanium oxide. This makes a white pigment which is capable of forming a good cover, so you will not be surprised to learn that it is found in some paints, and even in toothpaste. Its vanadium alloy is used in jet planes. A typical commercial jet plane contains 320 to 1130 kg of titanium. Use of titanium in consumer products such as golf clubs, bicycles, laboratory equipment, wedding rings, and laptop computers is becoming more common.

Let's now compare titanium with diamond. They do not have much in common. Diamond, far more often, is used in its "pure" form, not in any mixtures with other substances. They are both resistant to corrosion, and they share the property of hardness, but diamond is much the harder of the two. In fact, it is so hard that it is commonly said that "it takes a diamond to cut a diamond". Diamonds can be made into ultra-hard and smooth cutting knives and surgeons' scalpels for extremely precise surgery, and their hardness also makes them useful as an abrasive, grinding material for dentists' drills. Their resistance to wear makes them valuable in making tools for automated processes that need to produce large number of copies of the same product (such as car engine parts, parts for CD players, and parts for computers) without having to replace the cutting tool.

As well as being hard and abrasive, diamonds are transparent. They are only coloured when they contain impurities. A pure diamond is a very beautiful thing, so it is used to make jewellery, although only a minority of diamonds end up in this form.

Now let's move on to the third natural resource that we are going to consider: petroleum. Petroleum has had a huge impact on the lives of humans. Since the first oil well was drilled in the middle of the nineteenth century, petroleum has become indispensable to us. Petroleum is a hydrocarbon, which means that it is made up of hydrogen and carbon, but the interesting thing about it is that the molecules of hydrocarbons have different lengths and complexities, and when we separate them from each other and refine them, we can use them for a variety of different purposes. For example, the hydrocarbons made up of small molecules have a low boiling point and they ignite easily. These are used to make petrol for cars, and also bottled gas. The hydrocarbons with larger, more complex molecules, have a high boiling point. This substance does not flow easily or ignite easily. It is used to make fuel for ships, asphalt for roads and different kinds of plastics. Other products of petroleum include pesticides, waterpipes and insulation on electricity cables.

If you found all twenty-four words and phrases, you will see that the text classifies them too. How does the text classify them? Is the text's classification the same as yours?

2.3 Reading for Detail

Now read the text in 2.2 again, more slowly this time. As you read, fill in a table like the one below with the names of the resources, and their properties and uses. You will find properties and products that you did not discuss in 2.1. Add them to the table.

Resources	Properties	Products

2.4 Language Focus: Vocabulary

These seven expressions are found in the text on natural Resources in 2.2. Use them to make true or false statements about diamond, titanium and petroleum, and then work in pairs to read each other your statements. Try and do this from memory of the text!

Diamond	is found in	
Titanium	is made up of	
	is good for making	
Petroleum	is ideal for making	
	is used for	
	can be used for making	
	consists of	

- A: Guess what! Our next door neighbour's bought a new car.
 B: Oh, really? What kind is it?
 A: I'm not sure. It's something really big, some kind of four-wheel drive jeep, big and Japanese. Wow!
 B: He doesn't need to drive outside the city, does he?
 A: No, I suppose not. He just likes big cars, I suppose.
 B: Well, I think he's just being irresponsible. He shouldn't have a car like that if he doesn't need it.
 A: Why? It's his money, isn't it? He can do what he wants with it, can't he?
 C: No, I agree with Maria. It's greedy, in a way. It's not just pollution, it's a question of using up more than you really need to.
 A: But he's paying for it!
 B: Yes, but what C means is that some things aren't endless. Once it's used, it's used. We can't manufacture any more than there is already. It's the same with other things.
 A: Such as what? Trees, I suppose!
 B: Well, yes, you mean it as a joke, but, yes, it's true.
 A: Look, trees grow, you can't stop them growing. How can you run out of trees?
 C: Well, some things like petroleum just run out. Other things, like trees, keep growing as long as you don't cut too many of them down.
 B: And fish.
 A: Fish?! Come on, you're kidding!
 B: No, not at all. There are plenty of fish as long as we don't catch so many that the species goes extinct. It's already happening in some places in the world.
 C: I know your neighbour on his own won't make much difference, but it's a question of attitudes, isn't it? Human beings in general have to be more responsible. Countries, governments. Don't use too much and when you can, use stuff more than once.
 A: Now you really are talking rubbish. How do you suggest I use a fish more than once?
 C: Well, admittedly, you can't use a fish more than once. But look at that pile of empty cans over there. Pretty, isn't it?
 A: So you think we should use them more than once? What do you mean, pick them up and refill them?
 C: Well, they're made of aluminium. We can use the aluminium more than once, instead of just burying the old cans in the ground and forgetting about them.
 A: Send them back to the factory?
 C: No, there are companies that collect old cans, and used paper and bottles and things so the stuff can be re-used. And that means that we need to produce less aluminium and so on in the first place.
 A: It all sounds really boring to me. I wish I'd never told you about the jeep now. Anyway, it's not my problem.

When you have finished discussing the questions at the beginning of this section, divide into groups of three and read the dialogue together



3.2 Reading: Matching Information

Now read these statements and say which person in the dialogue, A, B or C, each one refers to.

1. This person says we should only use what we really need so we do not run out.
2. This person thinks that we do not need to concern ourselves about the fact that resources are finite.
3. This person says the problem of limited resources can be alleviated by trying to re-use resources.
4. This person says it is up to each one of us to decide what we do, and we shouldn't tell other people how to behave.
5. This person distinguishes between resources that can be replaced and those that cannot.
6. This person thinks that the Earth's stocks of natural resources are more or less unlimited, so there's no problem.

3.3 Reading: Collating and Comparing Information

In the dialogue in 3.1, the three people were speaking informally and in everyday, non-technical language. The following definitions are written in a more formal, technical sort of language. Read them, and identify the parts of the dialogue that they refer to.

Renewable Resources

Natural resources are derived either from the air, soil, water, and organisms of the biosphere, or from the subterranean areas of the Earth. Resources of the first kind will be depleted by excess harvesting, but, given time, proper conditions and natural processes, these resources will maintain and replace themselves. They do not release carbon dioxide and other air pollutants into the atmosphere.

Non-Renewable Resources

These resources, such as fossil fuels, are derived from beneath the Earth's crust, the Earth's ecosystems have evolved largely in absence of them, so they are in a sense foreign to the Earth's biosphere. They exist in limited supply and they are not being naturally created at a significant rate. Once consumed, that is the end of them.

Sustainable Development

Sustainable development involves maintaining our current rate of development whilst leaving suitable resources behind for later generations to continue to develop, i.e. development which meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development encourages us to conserve and enhance our resource base, by gradually changing the ways in which we develop and use technologies.

Waste Management

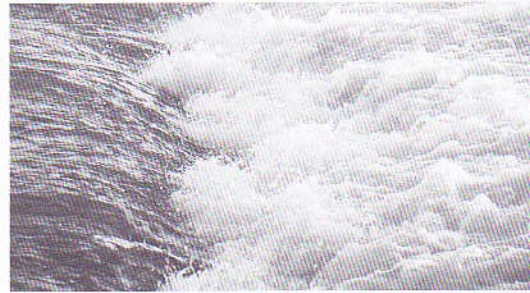
The social and economic development of a country can cause an increase in pressures on its environment and increases the need for a reduction in environmentally damaging activities. Some of these damaging activities involve the production and disposal of waste. The more waste we produce, the more we have to dispose of, either by recycling and re-using, burial (landfill) or burning (incineration).

The production of consumables in the first place, and their disposal when used uses up valuable natural resources and energy, processes which can impact upon the environment and in particular the atmosphere through pollution. Sustainable waste management encourages the generation of less waste, the re-use of consumables, and the recycling and recovery of waste that is produced.

3.4 Discussion

According to the definitions above, which of these are renewable resources and which are non-renewable?

forests fish coal	oil natural gas water	minerals petroleum silver	titanium herbs
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3.5 Language Focus: Modal Verbs - Should

The modal verb *should* is used in various ways. Did you notice any examples in previous sections? Look at the following examples and match each example to one of the descriptions.

"He shouldn't have a car like that if he doesn't need it."	1	A	This person is saying what he or she expects to happen.
"Everybody got very bored. You shouldn't have spoken for so long."	2	B	This person is talking about an obligation, not the kind of obligation where there is no alternative, rather a desirable course of action.
"She works so hard, she should pass the test easily."	3	C	This person is talking about something that happened even though it was not desirable
"Nobody knew where to go when they arrived for the beginning of the conference. We should have put a notice on the wall."	4	D	This person is giving advice to someone else.
"You should run ten kilometres every day so you lose weight."	5	E	This person is talking about something that did not happen even though it was the right thing to do.
"You were a bit rude to him. You should apologize."	6	F	This person is expressing disapproval of a situation.

Continue each of the following ideas using the verb *should/shouldn't (have)*:

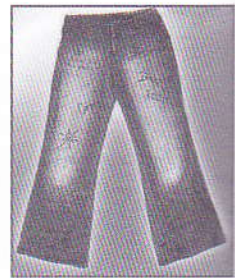
1. I ate that meat even though I suspected it was bad, and now I feel very sick.
I _____
2. Brazil is a much better side than Mexico, so in tomorrow's big match, _____
3. The traffic in this city is really dangerous. Nobody respects the speed limits.
People _____
4. Of course you have a bad cough. You smoke too much. You _____
5. We got to the airport too late and missed the flight. We _____
6. There is a lot of crime in the city. The government _____

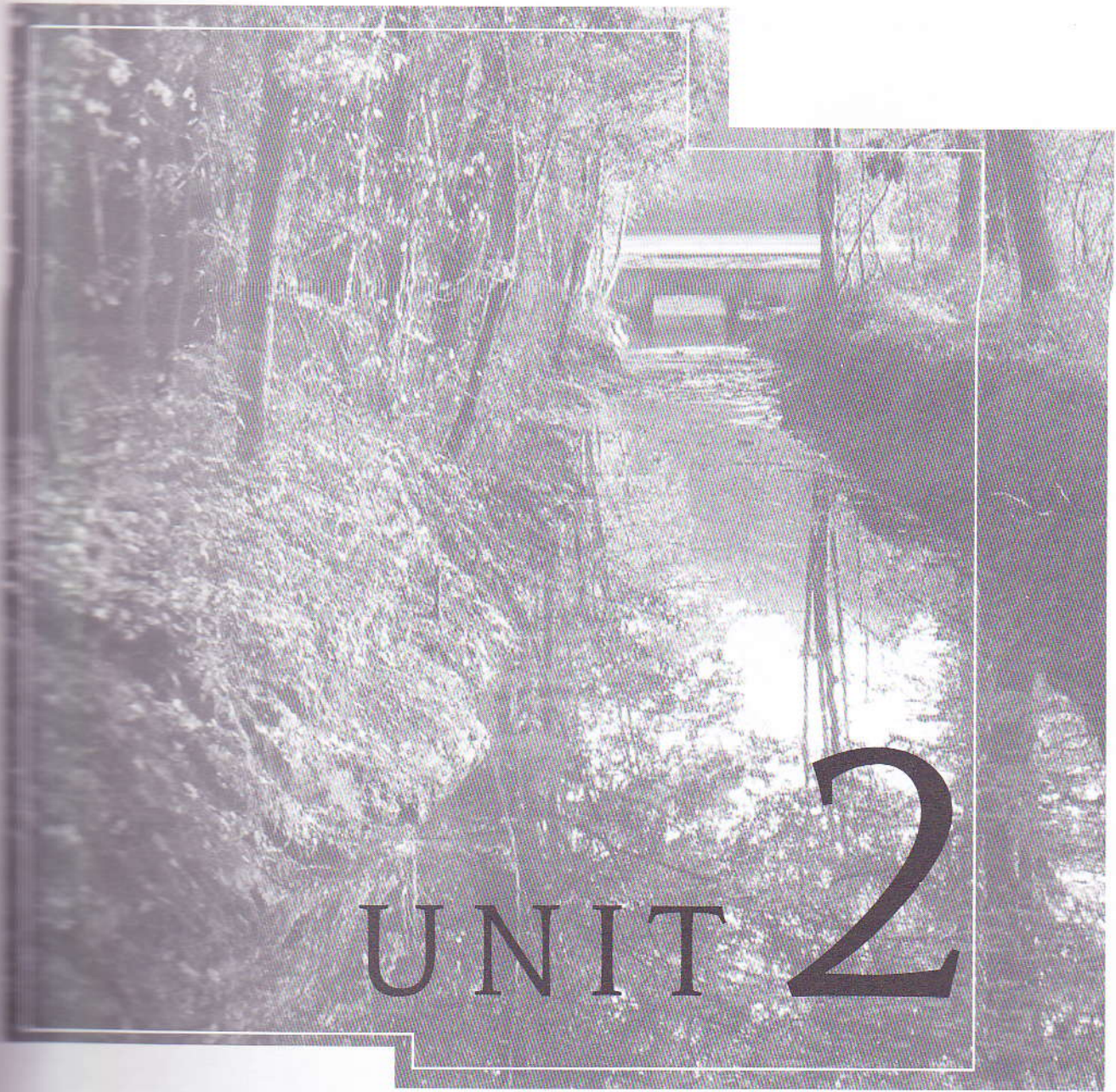
There are different ways to interpret each of the situations above. How do your answers correspond to numbers 1 to 6 in the table?

3.6 Discussion and Writing

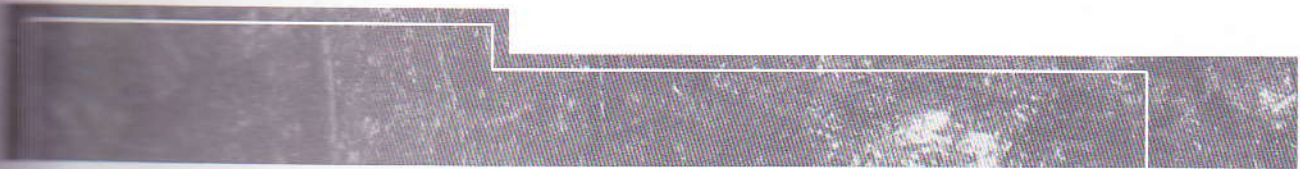
Look at these pictures. Write a short description of some or all of them in terms of the resources used to manufacture it, where the resources come from, what properties they have, and whether they are renewable or not. You may also like to think about the resources that are used during the process of manufacture of the objects. If you like, you can choose any other objects that you see around you or in your area.

If you write your description without giving the name of the object, it may be interesting afterwards to read your paragraph aloud and see if your colleagues can recognise the object from the description.





The Environment



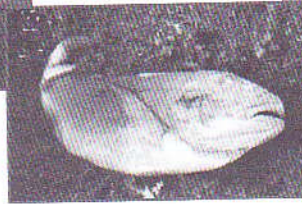
PRE-FOCUS



Global warming



Atmosphere pollution



Ecosystem destruction

We are killing our planet!

Look at the pictures and the newspaper headline. Talk to your partner about this statement. Do you agree?

*If you agree, write a list of ways in which you think this is happening.
If you don't agree, explain why you don't.*

Would you believe it?

Can you guess how long the following objects take to biodegrade? Exchange guesses with a partner.

- napkin
- match
- newspaper
- cigarette end
- plastic cup
- plastic bottle
- fishing line
- aluminium can
- glass



Throwing away

Can you guess how much you throw away? Every day? Every year?

- An average person in Los Angeles – 7 kilos of rubbish per day.
- An average person in Europe – 71 food cans, 34 pet food cans and 68 drink cans per year.
- A European family – 50 kilos of paper, 60 kilos of metal and 45 kilos of plastic per year.

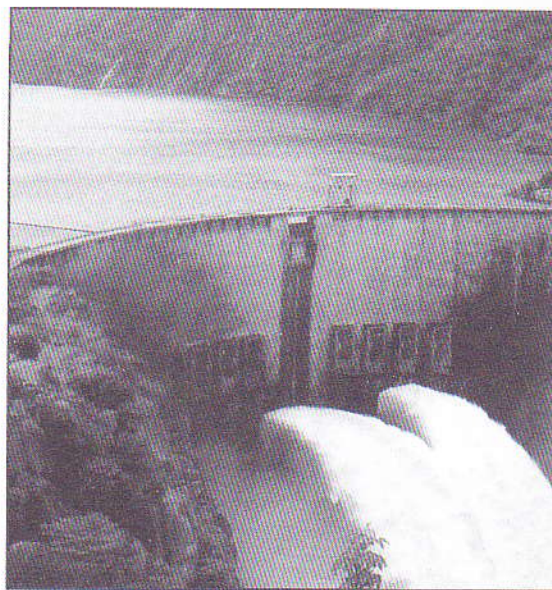
Task Cycle 1: Climate Change

LI Vocabulary and Writing - Collocations

A collocation is the way in which some words regularly go together. For example, we say "strong coffee" not "powerful coffee". How many of these collocations related to the environment do you know? Match the words in Column A with the words in Column B. In some cases there are maybe more than one collocation.

Example: hydroelectric schemes

A	B
global	petrol
unleaded	fuels
carbon dioxide	warming
environmental	energy
climate	party
fossil	countries
biodegradable	emissions
hydroelectric	bins
green	schemes
developing	disaster
solar	waste
recycling	change
toxic	packaging



Choose three of these collocations and write a definition of them without using the collocation itself. (You can use dictionaries to help you.)

Either pass your definitions to your partner for him/her to guess or read them out in the class for the other students to guess.

Now read these dictionary definitions and decide which of the collocations in the table they refer to.

1. using the force of the sun to do work, drive a machine or produce electricity
2. large storage containers used for collecting things that can be treated and used again
3. used, damaged or unwanted material that is poisonous to the environment
4. a group or political party that is concerned about the effect of human activity on the natural world we live in
5. material that is used for packing products and is then able to be broken down into harmless products by the natural action of living things

(adapted from *Longman Dictionary of Contemporary English*)

1.2 Discussion

Discuss the statements below about Climate Change with a partner and decide if they are true (T) or false (F). (Do you remember the expressions from Unit 1 for agreeing and disagreeing?)

1. The world is getting hotter.
2. Releasing carbon dioxide into the atmosphere causes an increase in the world's temperature.
3. The greenhouse effect is the result of carbon dioxide getting trapped in the atmosphere.
4. Carbon dioxide has a greater effect because we produce more of it than the other dangerous gases.
5. Oil, gas and wood are all examples of fossil fuels.
6. Deforestation is one of the main effects of global warming.
7. Even if we stop emissions now, the temperature will continue to rise.
8. We must increase global warming by more than 2 °Celsius.

1.3 Reading: Scanning for Specific Information

Now read the text and decide if your answers were correct.

The Causes of Climate Change

Climate change is a reality. Today, our world is hotter than it has been for two thousand years. By the end of the century, if current trends continue, the global temperature will probably climb higher than at any time in the past two million years. Global warming is one of the most serious challenges facing us today. We must reduce our emissions of heat-trapping gases if we are to protect the health and economic well-being of present and future generations.

Global warming is caused by emissions of carbon dioxide and other heat-trapping gases. Certain gases in the atmosphere, such as carbon dioxide, lead to a "greenhouse effect", stopping heat from escaping and keeping the Earth warm enough to sustain life as we know it. Although carbon dioxide is not the most potent of these gases, it is the most significant in terms of human effects because of the large quantities that are emitted. Carbon dioxide concentrations in the atmosphere are now the highest for 150,000 years.

Carbon dioxide and other heat-trapping gases are emitted primarily by the burning of fossil fuels. For more than a century, people have relied on burning fossil fuels such as oil, coal and gas for their energy needs. Factories, power stations and cars are all pumping out pollution into the atmosphere. The clearing of forests has a similar effect by reducing the number of trees available to use up carbon dioxide in the process of photosynthesis.

The 1990's was probably the warmest decade in history, and 1998 the warmest year. There is widespread agreement that a certain amount of additional warming – about 1.3 °Celsius is probably inevitable because of emissions so far. But it is considered vital that we limit warming to under 2 °Celsius if we are to prevent the worst effects of climate change.

If our greenhouse gas emissions are not brought under control, the speed of climate change over the next hundred years will be faster than anything known since before the dawn of civilization.

(adapted from <http://www.greenpeace.org>)



1.4 Discussion

Now in groups discuss which of the following are *effects* of global warming. Explain why you think so. (Use the expressions you practised in Unit 1 to ask for and give opinions and to agree and disagree with each other.)

Effects of global warming

- | | |
|------------------------------|---|
| rise in sea level | extinction of some species |
| damage to corals | decrease in the number of polar bears |
| more traffic on the roads | spread of disease |
| less rainfall in some places | hunting of animals |
| more industrial pollution | hotter weather |
| more tropical storms | introduction of new crops |
| reduction in fish stock | worse flooding in some parts of the world |
| melting of glaciers | burning of fossil fuels |

Now check your answers by reading the text 1.5 on the next page.

1.5 Reading: Scanning for Specific Information

Read the following text and decide if your choices in 1.4 were correct or not.

Environmental impacts

Global warming causes widespread damage to the environment in a variety of ways. There are obvious signs of this damage all over the world.

One of the effects of a rise in temperature is that it causes the ice caps and glaciers to melt which results in an increase in sea level. In the Arctic this results in a threat to the lives of the people, to the way they make their living and to the wildlife around them. In the case of polar bears, there has been a drop in their number because of damaging changes to their habitat. In other places river levels drop because of smaller glaciers.

Similar effects on the people and wildlife in other parts of the world have also been noted. Global warming affects weather patterns and causes an increase in the severity of weather events like droughts or tropical

storms. Severe drought in places like Africa leads to the drying up of water sources and the failure of harvests. People are forced to move away from their traditional homes or ways of living in order to find alternative sources of food and water.



On the other hand, in other parts of the world global warming can lead to an increase in the severity of tropical storms and hurricanes. These cause high winds and flooding which bring disastrous results for the people and affected land. The conditions resulting from both these scenarios may also result in the spread of disease.

Water temperatures are rising and when this happens sea life is obviously affected. Some fish like the American Pika fish are threatened with extinction. Similarly, corals can become bleached when water temperatures rise too high over a long period of time.

Which effects of global warming are mentioned in the text but not in the list in 1.4?

1.6 Language Focus: Cause and Effect I

Read the text again and pick out all the structures that express cause and effect.

CAUSE	cause(s) lead(s) to result(s) in affect(s)	EFFECT
EFFECT	is/are caused by is/are the result of result(s) from is/are affected by	CAUSE

1.7 Language Focus: Cause and Effect II

Explain the causes and effects of global warming by using the structures from the box in 1.6 above.

Example:

Global warming *causes* an increase in temperature.

Melting of glaciers *is the result of* an increase in temperature.

1. A rise in the level of the sea _____
2. The burning of fossil fuels _____
3. Severe drought _____
4. Weather pattern changes _____
5. A rise in the temperature of the sea _____
6. Bleaching of corals _____

1.8 Writing

In pairs make a list of three effects of climate change that can be found in Mozambique. Write a short paragraph about each problem including its cause and the effect.

Task Cycle 2: Deforestation

2.1 Discussion

In groups discuss these questions:

1. How much of the world's surface is covered by forest?
2. How much of Mozambique is forested?
3. Why are forests important to the environment?

2.2 Listening and Note-taking

Listen to your teacher reading the text in 2.3. It is better if you don't read the text. Copy the notes in your notebook and complete them on the causes and effects of deforestation. Ask your teacher (politely) to repeat it if necessary.



So, let's move on now to the main effects of deforestation. The first one is soil erosion. This is caused when there are no trees to stop the soil being blown away by the wind or washed away into nearby rivers. This can have devastating effects on the area as it can lead to flooding, drought and loss of wildlife, both animals and plants. That is to say, the biodiversity of the ecosystem is affected. By this we mean that the natural life of the area is no longer sustainable and that plant and animal life will become extinct.

The second major effect of deforestation is that it leads to an increase in the level of carbon dioxide in the atmosphere. There are fewer trees absorbing carbon dioxide from the atmosphere for the process of photosynthesis. This rise in carbon dioxide then intensifies the "greenhouse effect", which as we already know causes global warming to take place.

So, in conclusion I would just like to say that much of our natural forest is being lost in these ways and this in turn is having a dramatic effect on our atmosphere and planet. We must act now and put a stop to these practices if we are to save our forests and our planet.

2.4 Language Focus: Giving Presentations

Read through the presentation again and pick out the expressions that are used to help the listener follow the organization of the talk.

Introduction:

Definition:

Reasons

Point 1:

Point 2:

Point 3:

Effects

Point 1:

Point 2:

Conclusion:

2.5 Language Focus: Cause and Effect III

In the text in 2.3, pick out all the examples you can find of the verbs used to describe causes and effects.

2.6 Language Focus: Purpose I

In these extracts from the text, the bold part expresses purpose:

Firstly, the forests are often cut down to be used for timber

The trees may be felled so that extractive industries such as mining can take place.

Pick out from the text as many other examples as you can of different ways to express purpose.

2.7 Language Focus: Purpose II

Complete the following purpose sentences with *so, to, in order to, so that*.

1. I hurried _____ I wouldn't be late.
2. I didn't have enough time _____ do my homework last night.
3. Do you wear glasses _____ read?
4. There is a party tomorrow _____ celebrate the end of term.
5. He phoned the police _____ report the robbery.
6. I gave João my phone number _____ he could call me later.
7. This is a very good recipe _____ use for making matapa.
8. Please be punctual _____ we can start the meeting on time.

2.8 Vocabulary: Word Formation

The part of speech of a word can be changed by adding a suffix:

Examples: *-tion, -ance, -ment* or *-ing* to the end of the word. These are common ways to change a verb into a noun

Examples: *reduce (verb) – reduction (noun)*.

Make the verbs in the box into nouns by adding the appropriate suffix. Write the nouns in the correct column. Be careful with the spelling.

pollute	erode	develop	recycle
improve	prevent	regenerate	bleach
destroy	protect	conserve	disappear
manage	flood	treat	organize
resist	commit	cultivate	melt

-tion	-ment	-ance	-ing

Now, complete the following sentences in a suitable way by using words from the tables above. Decide whether you need the verb form or the noun form.

1. Soil _____ is the result of deforestation.
2. Smoke from factories _____ the air in our cities.

3. We can help clean up the environment if we _____ our rubbish.
4. There are several _____ like Greenpeace which have a _____ to the _____ of our environment.
5. A healthier environment depends on the _____ of strategies to deal with these issues.
6. More damage to the environment can be _____ if we act quickly.

29 Language Focus: Pronunciation / Word Stress

Listen to your teacher and look at the stress in the words below.

development pollution conservation

Now, listen to your teacher and mark the correct stress pattern in the following words.

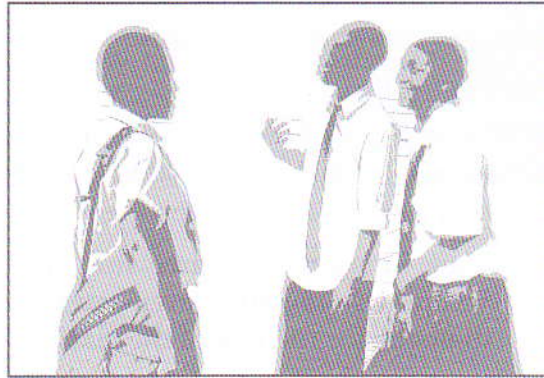
erosion	improvement	destruction
resistance	regeneration	assistance
disappearance	recycling	protection

Now, practise the pronunciation with a partner. Test each other. Can you pronounce the verbs that these words are formed from?

Task Cycle 3: Environmental Solutions

3.1 Dialogue

In groups of three, read aloud the discussion between three 17-year-olds who are going to leave school next year.



A: Hi, Bruno. My teacher tells me it's time to start thinking about what we're going to do when we leave school. Have you thought about it? What'll you do if you get good results in the exams?

B: Well, if I pass all my exams, I'll go to University. But I doubt if I'll get good enough marks to study engineering. I'd really love to be a civil engineer, if I had the chance. But, if I don't get the grades, I suppose I'll have to do something else, English or History, or something like that and then become a teacher. What about you? Have you thought about what you might do?

A: Well, I think I may try to study law. But more important than that is that my Dad says he'll buy me a sports car and send me on holiday to South Africa, if I get good grades. That's a good incentive to work hard.

- C: Some people have all the luck! My Dad says I'll have to get a job in the holidays if I want to finish school next year. He can't afford to keep me, let alone give me nice holidays. If I had a rich Dad, I wouldn't need to go to school any more!
- B: Well, you could always look for a rich husband/wife. If you found one, you wouldn't have to get a job, would you!
- C: Maybe but I really want to do something useful with my life. If I was good enough, I would become a famous footballer and earn lots of money that way. And then I would give money to those who need it too. But to be realistic, I might look for a job in a company if I can find someone who will give me a job, or join the Navy. I don't want to go to University.

Find all the examples of conditionals in the dialogue. Do you remember the rules for the two types (1st and 2nd conditionals)? Do you know the difference in meaning between them?

3.2 Language Focus: 1st and 2nd Conditionals I

Work in pairs. Look at the events in the box. Decide

- i) how likely or unlikely it is to happen to you in the future.
- ii) your course of action.

Make dialogues as in the example. Take it in turns to start.

For example:

(likely)

- A: What will you do, if it's sunny at the weekend?
 B: I'll go to the beach. What about you?
 A: I'll take my little sister for a walk.

(unlikely)

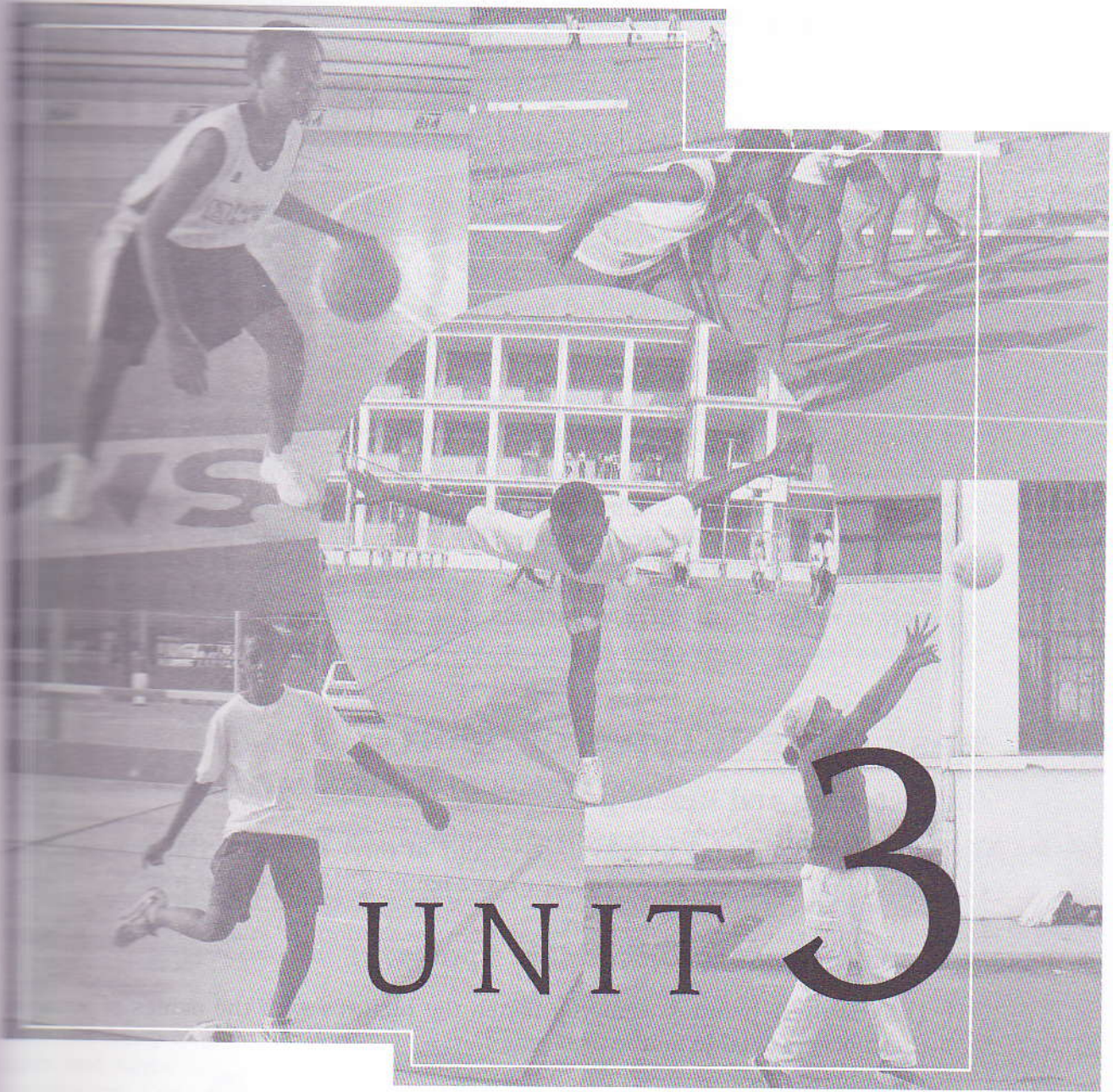
- B: What would you do, if you became a famous footballer?
 A: I'd coach kids at the local football club. What about you?
 B: I'd buy a big house and drive a Ferrari.

Now, in a group of three students, prepare a dialogue about your plans for the future. Use the structures you have practised in the exercise above. Act out the dialogue for the rest of the class.

be sunny at the weekend become a famous footballer find some money in the street pass your final exams win a lot of money get a job in South Africa meet your friends tonight have a day off this month speak excellent English see a robbery
--

3.3 Presentation

In groups, make a list of five things you can do to improve or conserve your local/school environment. Write your list on the board and explain to the class why you have chosen these measures.



UNIT 3

Sport



PRE-FOCUS

Nobody really knows how sport in general originated. Examples of 30,000 year old cave art from Africa, France and Australia suggest that there was activity in those times resembling sport, although there is no direct evidence. There is more direct evidence of sport as we know it among the Chinese people of 4000 years ago. And the ancient Egyptians had a number of sports including swimming and fishing, and things like javelin throwing, high jump and wrestling. The development of sport throughout history teaches us a lot about social changes, and about the nature of sport itself.

How do you think sport originated all those thousands of years ago? Discuss the following possibilities with a partner, and put them in order from most probable to least probable, explaining why you think so.

1. People needed to stay fit and healthy.
2. People needed a substitute for war and fighting.
3. People had too much energy and needed to get rid of some of it.
4. People are naturally competitive, and always have been.
5. People got bored and needed something to do.
6. Sport started as a ritual.

Are there any other possibilities not mentioned above?

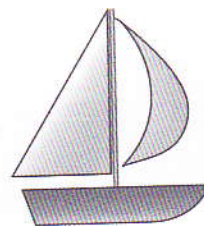
Task Cycle 1: Types of Sports

1.1 Listening and Reading

The teacher is going to read descriptions of three sports. If you recognize the sport, don't call out! Just write down the name of the sport and wait.

1.2 Vocabulary and Discussion: Sports

Look at these pictures. Can you match the pictures with the names of some of the sports (see table on the next page)?



boxing	high diving	long jump
swimming	weight lifting	horse racing
motorcycling	surfing	cycling
sailing	hockey	volleyball
fencing	running	golf
karate	motor racing	judo
football	basketball	rugby
baseball	equestrianism	gymnastics
archery	rowing	wrestling

Which of these sports are played in Mozambique? Are any of them played in your area? Which ones have you tried? Which ones have you never heard of? Which ones would you like to try if you had the opportunity?

Now imagine you are going to write an encyclopædia article about sports, and you need to classify these sports into different types. How would you do it? What kind of classification would you make? Discuss this with a partner or in a small group. (There is no single correct answer for this; it is all a question of opinion, so use the "agreeing and disagreeing language" from Unit 1.)

1.3 Intensive Reading and Information Transfer

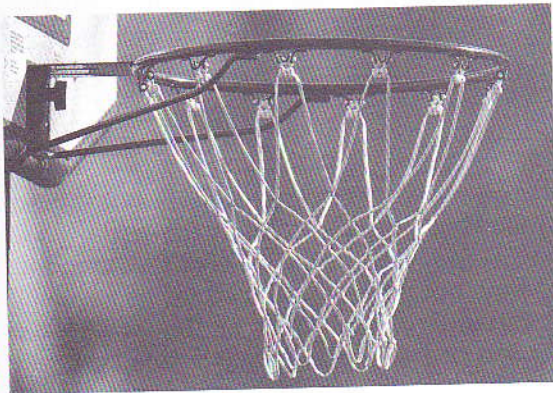
Here is an encyclopædia article which classifies sports into different groups. Read it and see if it uses the same classification as you. You may notice that the text is not divided into paragraphs at all. Decide where the paragraph breaks should come. There is more than one possibility, so you may have to argue for your solution!

There are many different ways to classify sports, and maybe none of them is completely satisfactory. One way is to classify them in the first place according to the objective of the sport. If we follow this line of thinking, we could divide sport into three main categories: different kinds of racing; opponent-based sports; and achievement sports. Let's look at them one by one. In racing sports, you aim to be faster than a set of other people, in a variety of ways. We could subdivide this section into three: human, human-assisted and races involving an external power source. The first of these, human racing, is obvious enough. This category is made up of sports where your speed is provided only by your own

muscles and energy, such as running and swimming. In the second of the three categories, you also use your own muscles and energy, but you are assisted by some other mechanism. Examples of this would be cycling or rowing. In the third category, you win the race by exploiting and managing an external power source. This could be an animal, such as a horse which wins the race by jumping or running at your command, or it could be a machine, as in sailing or motor car racing, or motor bike racing, which use the power of the wind or the power of the internal combustion engine. In the second of the three main categories, you face your opponent in a more direct way, and you succeed

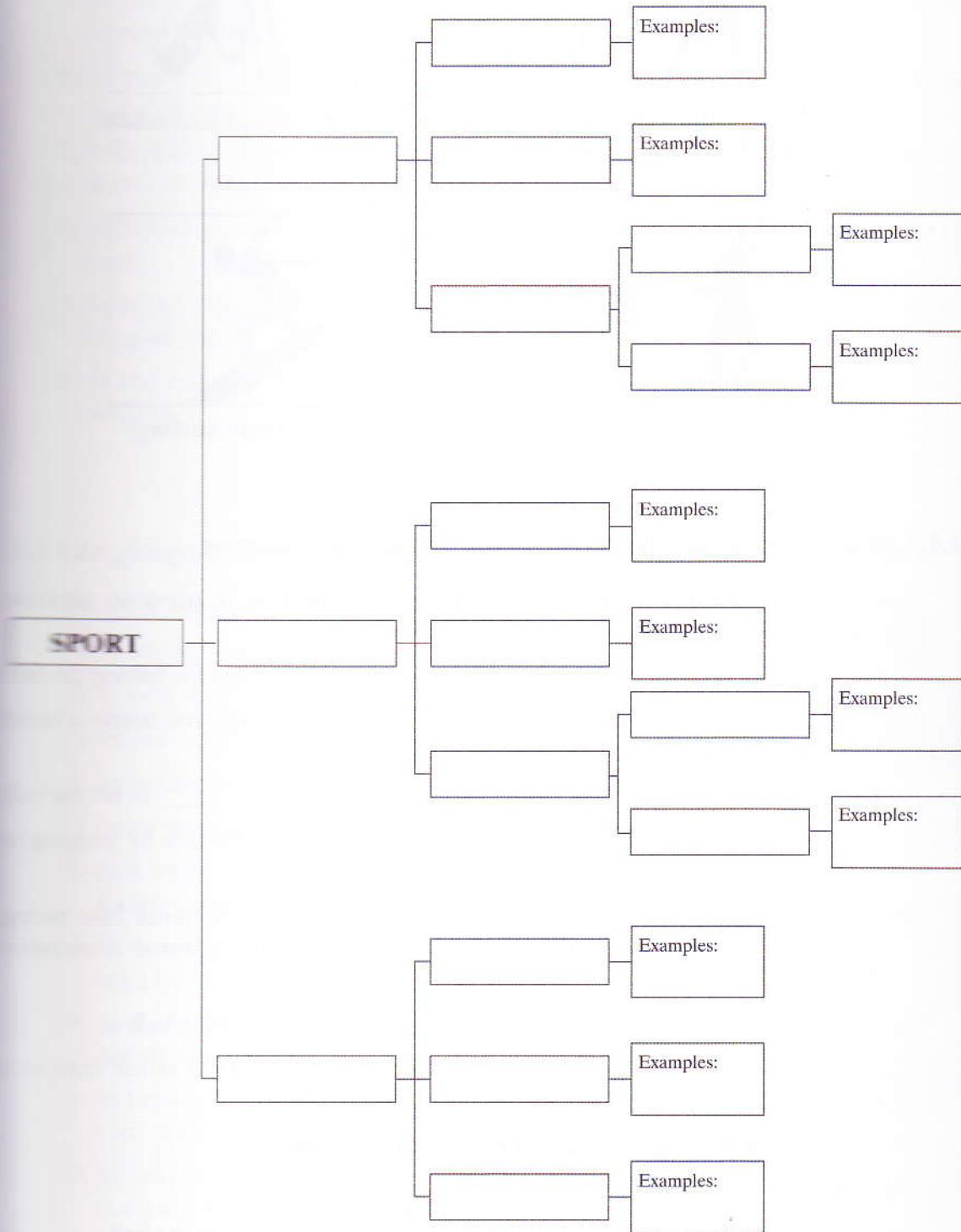
by more direct interaction with your opponent than in the previous category. This section could also be divided into three main categories: combat sports, courtbased sports and team sports. Combat sports are self-explanatory. In these, you have to hit or kick or throw your opponent more effectively than he or she can do the same to you. These sports include boxing and wrestling, and also the martial arts such as judo and karate. In court-based sports, there is no direct physical contact. The players have some sort of racquet which is used to hit the ball. You score points by keeping the ball within a set of marked lines – the court – and by trying to prevent your opponent from doing so. There may be a net across the middle of the court, and if you hit the ball into the net, you lose the point. Tennis is the most obvious example of court sports, but volleyball, squash and badminton also fall into this category. Then there are the team sports, which are played on a field rather than on a court. There are two basic kinds: In the first, which is goal-oriented, a team scores a point, or a goal, by getting a ball into the other side's goal, or net. Sometimes you score goals by running and kicking, as in football, or by carrying the ball and running with it, as in rugby, or by hitting the

ball with a stick, as in hockey. All the players play at the same time. In the other kind, which is bat-oriented, such as baseball or cricket, the objective is to hit the ball as far as possible, using a bat, and then you have to run to a certain point before the ball is returned. If your opponents catch the ball, you are "out". Not all the players are on the field at the same time. Our third main category is achievement sports. Again, there may be teams, and there may be opponents, but your main objective is to reach some objective standard or level, rather than winning by knocking your opponent down or beating him in a race. There is no direct interaction with the opponent. The first kind of achievement sport is target-based. The participants have to shoot a gun or use a bow and arrow to hit different kinds of target accurately and consistently. The second kind, we could call display sports, in which your technique and style is judged. Examples include gymnastics, equestrianism and high diving into a swimming pool. Finally, we have the strength-based achievement sports. In these the participants have to lift more weights than their opponents (weight-lifting), or throw a javelin further, or jump higher or further (the high jump and the long jump).





Now copy this classification diagram into your notebook and complete it according to the text.



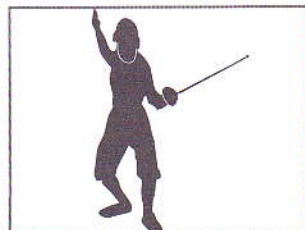
Do you agree with the classification given in the previous text?



Where would you put golf in the classification diagram?



What about basketball?



What about fencing?



What about surfing?

1.4 Language Focus: Non-Defining Relative Clauses

Look at these examples of relative clauses from the text in previous sections. The same word is missing from each one. What is it?

1. Each player has a special piece of equipment _____ is used for hitting the ball.
2. There is an obstruction across the middle of the playing area nearly a _____ high, over _____ the ball is hit in both directions.
3. Each player has a set of special pieces of equipment with _____ to hit the ball.
4. This could be an animal, such as a horse, _____ wins the race by jumping or running at your command.
5. It could be a machine, as in sailing or motor car racing, or motor bike racing _____ uses the power of the wind or the power of the internal combustion engine.
6. The players have some sort of racquet _____ is used to hit the ball.
7. Then there are the team sports, _____ are played on a field rather than on a court.

Now join the following sentences together in the same way:

Example:

Each player has a set of golf clubs. The golf clubs are used to hit the ball.

Each player has a set of golf clubs which are used to hit the ball.

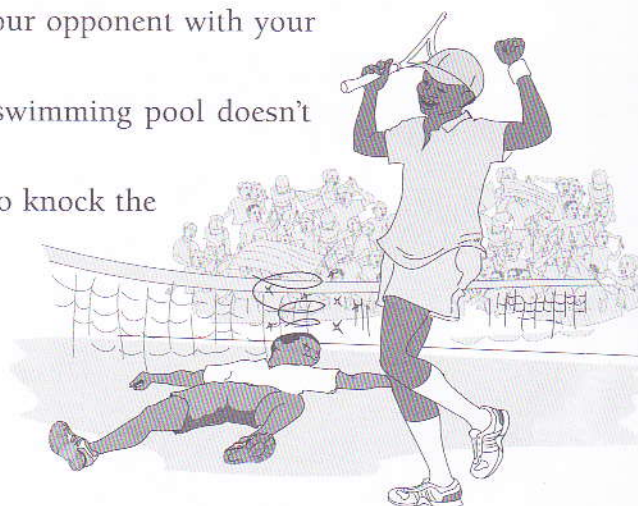


1. In football, each team tries to get the ball into their opponents' net. The net is four metres wide and two metres high.
2. Each tennis player hits the ball with a racquet. The racquet consists of a strong frame and strings.
3. In golf, the players have to get their ball into the hole. The hole is nearly eleven centimetres in diameter.
4. Gymnastics can take various forms. We have classified gymnastics as an "achievement display" sport.
5. Volleyball is played between two teams of six players on a court. An American doctor invented volleyball in 1895.
6. Volleyball players hit the ball over the net. The net is across the middle of the court.
7. In rugby, there are two high goal posts. The players must kick the ball between the goal posts.
8. At the end of the long jump, there is a sandbox. The athlete jumps into the sandbox.

1.5 Language Focus: Expressions for Necessity and Obligation

Are these statements true or false?

1. In tennis, you don't need to score points to win the match.
2. In volleyball, you mustn't hit the ball under the net.
3. In golf, you don't need to run fast.
4. In boxing, you have to be heavier than your opponent to win.
5. In a Formula 1 race, all the cars have to have the same engine size.
6. In hockey, you mustn't hit your opponent with your hockey stick.
7. In diving, the water in the swimming pool doesn't need to be very deep.
8. In the high jump, you have to knock the bar off the stand.
9. In karate, you mustn't touch your opponent's head.
10. In tennis, you have to hit the ball harder than your opponent to win the point.



In the same way, write true or false statements about football and basketball (or some other sport if you prefer) and when the teacher has checked them, read them aloud to the class. Each one of your statements must include "mustn't" or "have to" / "has to" or "don't need to" / "doesn't need to".



1.6 Language Focus: Vocabulary - Action Verbs

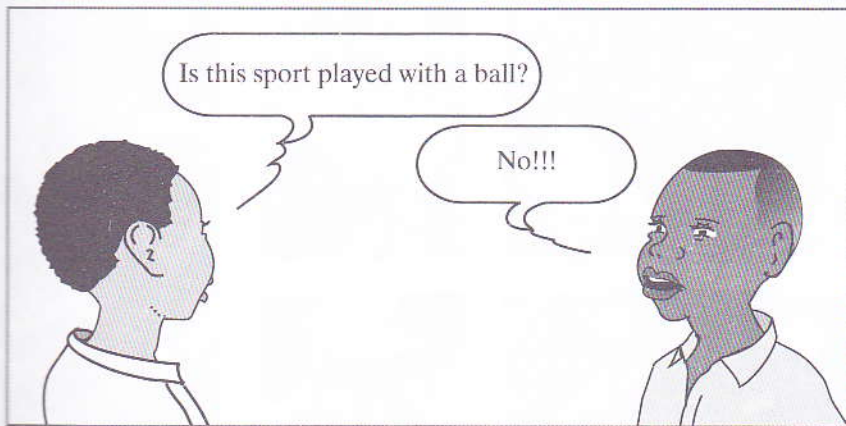
In previous sections we have used a variety of verbs, which are used in this exercise, to express the actions in sports. Match the three columns to make true statements about the sports we've been discussing.

A1	you get someone out	B1	in motor racing	C1	by knocking your opponent down
A2	you score a goal	B2	in tennis	C2	by running faster than everyone else
A3	you win the fight	B3	in a lot of sports	C3	by catching the ball
A4	you use a racquet	B4	in athletics	C4	by beating all the other teams
A5	you shoot an arrow into the middle of the target	B5	in football	C5	by throwing it further than your opponents
A6	you win the championship	B6	in archery	C6	to hit the ball
A7	you win the race	B7	in boxing	C7	by kicking or heading the ball into the net
A8	you jump high	B8	in baseball or cricket	C8	to hit the ball over the net
A9	you win the javelin event	B9	in volleyball	C9	to score maximum points



1.7 Speaking - "Twenty Questions"

Play this game in pairs or small groups or with the whole class. One person thinks of a sport (one of the sports mentioned in this task cycle or another one if you like). The others ask questions to find out what sport he is thinking of. But the person can only answer YES or NO, so you must only ask YES/NO questions. The teacher will decide if the question is correct. If it isn't you will have an opportunity to correct it.



1.8 Writing

In this Task Cycle, we have looked at the names of sports, at verbs used to express actions. Try and use as much as possible of this language in some or all of the following writing tasks. If you like, you can write the composition in pairs or small groups and help each other with the ideas, grammar and vocabulary.

- Explain the differences between basketball and football.
- Explain basketball to someone who has never seen the game or heard of it.
- Explain the offside rule in football to someone who does not really understand the game.
- Explain the basic rules of tennis and the method of scoring to someone who is going to start learning the game.
- Explain the differences between football and rugby, or between football and American football, or between any two other similar games.

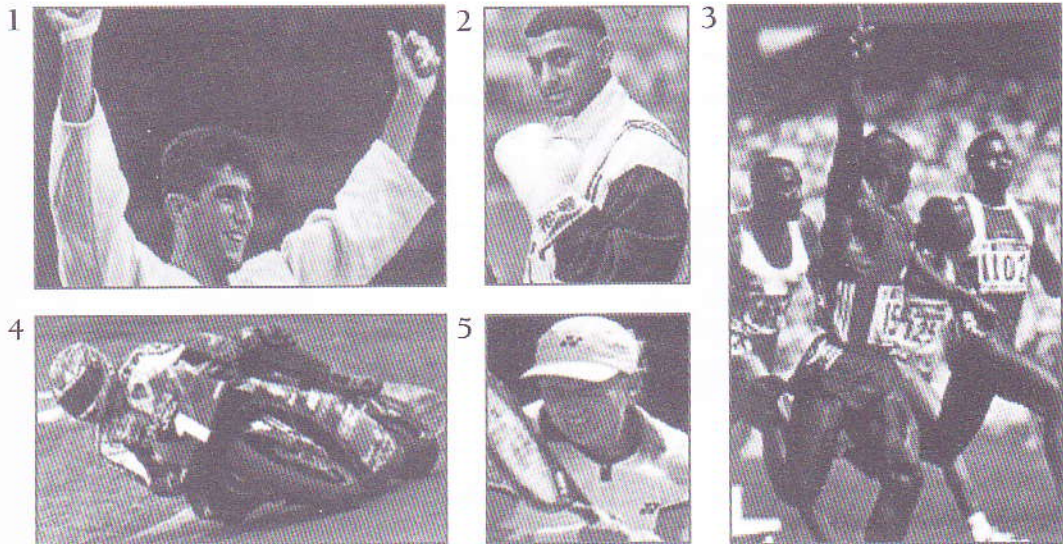


Task Cycle 2 : Problems Facing Sports People

2.1 Reading: Skimming

Part A

Look at these five photos of five top sports people. Can you guess which of these five problems – injury, politics, religion, performance-enhancing drugs, personal safety – refers to which person? Discuss it with a partner – all in English with the agreeing and disagreeing language from Unit 1.



Part B

Now read the texts quickly to check your guesses, and to match the texts to the photos.

Text A:

Carl Fogarty

Carl Fogarty, also known as "Foggy" to his friends and thousands of fans, was born on July 1 1965 in Blackburn, England. He had an early introduction to motorcycles as his father was also a racer. He started racing in motocross when he was thirteen and soon progressed to road racing. His first major triumph came in 1992, in the Isle of Man TT. With the help of his father, Foggy memorized the 60 kilometres of roads over which the race would take place. He then drove his Yamaha YZF750 at an average speed of nearly 200 kilometres an hour around the circuit!

In 1994, he won his first world title in the World Superbike class, and went on to win the title three more times in 1995, 1998 and 1999, along with about fifty other world titles, most of them with the Ducati team. His career was cut short by a very bad accident on April 23rd 2000, in Australia, in which he injured his left arm and shoulder badly. He tried to come back after the accident, but after trying out at Italy in September 2000, he realized that he just wouldn't be able to. "After the operation, the doctors told me I would never be the same person I was, that I wouldn't be able to ride a bike like I did," he told BBC Radio. "I didn't want to believe them, but it's true. But I have had a fantastic career and I can be very satisfied with what I have done for motorcycling. I don't think I have to demonstrate anything else."

(adapted from bbc.co.uk and <http://ccrma.stanford.edu>)



Text B:

Monica Seles

Monica was born in Novi Sad, Yugoslavia, on December 2nd 1973. She first picked up a racquet at the age of six, and she won her first tournament when she was nine. In 1985, she moved to the USA to train with a professional coach, and after only a few months, she was so good that even men players refused to play against her! In 1990, she became the youngest player to win a Grand Slam tournament – the French Open in 1990 – and she went on to win a series of top tournaments. She was called the best player in the world.

Then on April 30th 1993, in Hamburg, Germany, during the quarter-final of the competition, Monica was sitting at the side of the court between games when suddenly a man leaned over towards her from the front row of spectators. He had a 25 cm knife in his hands, and he stabbed her in the back. She screamed and fell onto the court. It was said by some that he was a fan of Steffi Graf, Monica's opponent, but his reasons have never really been discovered. The months after the attack were bad for Monica, but she made a comeback, and went on for several more years, winning more major tournaments.

(adapted from www.monica-seles.com and bbc.co.uk)

Text C:

Arash Miresmaeili

ATHENS, Aug. 15, 2004 – Two-time world judo champion Arash Miresmaeili of Iran, the gold medal favourite in the under-66 kg class, yesterday refused to fight his first-round match against Israeli Ehud Vaks after saying he would not fight an Israeli because he sympathizes with Palestine and doesn't recognize the Israeli state. Miresmaeili later said: "Although I have trained for months and am in good shape I refused to fight my Israeli opponent in order to show my sympathy with the suffering of the people of Palestine."

Vaks was sad when he heard the news. "That is not the way I wanted to win. I feel terrible for him, and I'm sure if it was up to him, he would have fought," he said. "The politicians didn't let him fight. It is not fair to him. He was the favourite. They tell me not to talk about politics, but sport is part of politics. I feel terrible on a personal level for him, and on a national level, too."

"We are really sad," said Israeli spokesman Yaron Michaeli. "We believe in the Olympic ideal, which is no borders, no politics, just being together and doing sport. We are here in Athens for sports, not politics. We have enough politics at home. It's really a pity."

(adapted from www.washingtonpost.com by Michelle Kaufman)

Text D:

Prince Naseem Hamed

When Prince Naseem Hamed announced he was coming out of a three-year retirement, people started to look forward to the prospect of a fight between him and the new champion, Amir Khan. Hamed, however, says he will not fight another Muslim, no matter how much money is involved. Hamed said, "There is one thing that I have always believed and I will always do; I will never fight another Muslim. I will never get in the ring with another Muslim. It is against my principles."

After being World Champion for six years, Hamed lost the title four years ago. A year later, he disappeared from the boxing world to spend more time with his family – his wife, two sons and his parents – but now he says he is ready to come back. His decision not to fight against Khan is a major disappointment to the promoters. However, the boxer's return will still generate huge interest. "One of the biggest entertainers in the sport is going to be back again," he insisted. "I believe I can be even better than I was before – I am stronger and more mature. I still have to prove that – but there will be plenty of people interested in watching."

(adapted from Yorkshire Post www.yorkshiretoday.co.uk)

Text E:

Ben Johnson

Ben Johnson, "the fastest man on Earth", was born on December 30th, 1961, in Jamaica. He emigrated to Canada in 1976. Ben's first major international race was the 100 meter event at the 1983 World Championships in Helsinki, where he was eliminated in the semi-finals, finishing 6th with a time of 10.44. The following year, Ben Johnson reached the final of the 100 metres at the 1984 Summer Olympics in Los Angeles, finishing third behind Carl Lewis and Sam Graddy with a time of 10.22. Carl Lewis, an American, was to become Ben's great rival. Ben first beat him in 1985, and in 1986 he ran 9.95 – the fastest ever recorded at sea level – against Lewis's 10.06. At the World Championships in 1987, Ben smashed the world record in 9.83 seconds, beating Lewis easily. Then they met in the 1988 Olympics in Seoul, where Johnson smashed his own world record with a time of 9.79 seconds – the fastest man on Earth! An incredible performance. Lewis finished second with a time of 9.92 seconds.

Then, two days later, the terrible news was announced. Johnson had failed a drugs test. Steroids were found in his blood, and his gold medal was taken away from him and it was given to Carl Lewis. Canadian fans, so ecstatic at the time of the victory, were devastated.

At first, Johnson denied taking drugs, but later admitted that it was true. His coach said Ben had been taking drugs since 1981. Ben was banned from competition for two years. Then he came back, determined to break more records, and beat Lewis again. But in 1993, in Montreal, he again tested positive for steroids and was banned for life. Ben said: "I did something good in my life. My Mum and Dad saw me run faster than any human, and that's it. Better than a gold medal."

(adapted from www.wikipedia.com)

2.2 Reading: Scanning for Specific Information

The following statements refer to the texts in 2.1. Write down in your notebook which text, A, B, C, D or E, it refers to. The statements may refer to more than one text, in which case, give the letter of each.

1.	This text mentions the reactions of the public to what happened.
2.	This text talks about someone who did not accept medical advice at first, but then had to.
3.	This text tells us about a sports person who made the same mistake more than once.
4.	This text talks about some limitations that the sports person imposed on himself.
5.	This text refers to someone who was influenced and helped by a parent.
6.	This text tells us how the people who organize the sport are not very happy at the sports person's decision.
7.	This text describes a sports person who moved away from their country of origin in order to be able to compete at a higher level.
8.	This text mentions the sports person's opponents.
9.	This text describes how the sports person's fans reacted to an event in the person's career.
10.	This text describes how one sports person benefited from the decision of another one.
11.	This text describes someone who managed to overcome a big problem and return to top level competition.
12.	This text describes someone who does not regret the end of their career.
13.	This text quotes a sports person who does not seem to be very modest!
14.	This text describes a problem that was not caused by a decision of the sports person involved.

2.3 Language Focus: Pronunciation of Past Tense Verbs

These extracts are from the five texts about the top sports people. Discuss with a partner which of the five people it refers to, without looking back.

1.	He again tested positive for steroids.
2.	"I refused to fight my Israeli opponent."
3.	He soon progressed to road racing.
4.	She first picked up a racquet at the age of six.
5.	He memorized the 60 kilometres of roads.
6.	"That is not the way I wanted to win."
7.	People started to look forward to the prospect of a fight...
8.	He emigrated to Canada in 1976.
9.	In 1985, she moved to the USA.
10.	He injured his left arm and shoulder badly.
11.	He stabbed her in the back.
12.	He tried to come back after the accident.
13.	A year later, he disappeared from the boxing world.
14.	But he later admitted that it was true.
15.	The following year, he reached the final of the 100 metres.
16.	He started racing in motocross when he was thirteen.
17.	"One of the biggest entertainers in the sport is going to be back again," he insisted.
18.	He was eliminated in the semi-finals.

Now let's focus on the pronunciation of the verbs in the extracts.

The -ed past tense ending of regular verbs is sometimes, but not always, pronounced as an extra syllable. For example, the basic form **work** has one syllable. The past tense **worked** also has one syllable. The past tense **offer** has two syllables. Its past tense **offered** also has two syllables. But look at the verb **decide**. The basic form has two syllables, but the past tense **decided** has three. The basic form **end** has one syllable, but its past tense **ended** has two.

How many syllables are there in the basic forms and past tenses **pass-passed**, **open-opened**, **wait-waited**, **parade-paraded**, **like-liked**?

What is the rule for putting an extra syllable onto the past tense form?

Look at the list of extracts again and decide if the verb in bold has an extra syllable in the past tense.

Now read the extracts aloud, and be especially careful with the past tense of the verbs. If you like, you can read them in pairs, and see if you agree with your partner's pronunciation.

2.4 Language Focus: Asking Questions in the Past Tense

The following statements relate to the five texts in 2.2. The words in bold italic are the answers to questions. Write the questions which give those answers.

Example: When did Carl Fogarty start racing?

Carl Fogarty started racing when he was **thirteen**.

1. _____ ?
Carl Fogarty drove *at an average speed of nearly 200 kilometres an hour* around the TT circuit!
2. _____ ?
Carl Fogarty won the world title *four* times.
3. _____ ?
Carl Fogarty had a very bad accident **on April 23rd 2000**.
4. _____ ?
Monica Seles was born **in Yugoslavia**.
5. _____ ?
Monica Seles moved to the USA to train **with a professional coach**.
6. _____ ?
Monica was stabbed **during the interval between two games**.
7. _____ ?
The knife was **twenty-five centimetres long**.
8. _____ ?
Arash Miresmaeili refused to fight Vaks because he was **Israeli**.



9. _____ ?
Vaks was not happy, because he would prefer to win by fighting, not through a disqualification.
10. _____ ?
Prince Naseem Hamed stayed out of boxing for three years.
11. _____ ?
While Hamed was in retirement, he spent time with his family.
12. _____ ?
Hamed refused to fight Khan because he is a fellow Muslim.
13. _____ ?
Naseem Hamed was World Champion for six years.
14. _____ ?
Hamed lost the title four years ago.
15. _____ ?
Ben Johnson emigrated to Canada in 1976.
16. _____ ?
Ben first beat Lewis in 1985.
17. _____ ?
Ben Johnson became the fastest man on Earth in 1998 at the Seoul Olympics.
18. _____ ?
No, Ben didn't tell the truth about the steroids at first.

2.5 Language Focus: Second Conditional

Imagine you are a famous sports person, at or near the top of your career. A great striker in your favourite football team, a brilliant tennis player, a lightning-fast runner, unstoppable on the basketball court.

Write complete sentences with the structure:

if (past tense) _____, I (would) _____

1. What would you do if your government told you not to take part in an event because of your opponent's politics?
2. How would you react if your doctors told you that you had to stop doing your sport?
3. How would you feel if you started losing more than winning?
4. What would you do if you started receiving letters threatening you and your family?
5. What would you think if you were offered a lot of money to lose a race / match?
6. What would you decide if your team had to tour a country which did not allow black people into the national team?

When you have finished writing, and when your teacher has checked your work for errors, divide into pairs or small groups and read your answers to the others. Did you have the same reaction as the others? If not, try to convince them that you are right.

2.6 Language Focus: Present Perfect I

These phrases use the present perfect tense. What is the rule for forming the present perfect? Which of these students do you agree with?

I **have had** a fantastic career and I can be very satisfied with what I **have done** for motorcycling.



The present perfect is formed with the verb to HAVE as the auxiliary, then the third form of the main verb.



We use it when we are talking about something that happened recently.



And another of its uses is to describe an event that happened at some unspecified point in a period of time that finishes in the present.

According to the present perfect rule, which of the following statements are grammatically incorrect?

1. I have been to my uncle's house yesterday.
2. I have read that book five times, and I think I'll probably read it five more times!
3. Congratulate me! I have passed my final exams last week.
4. I have written the report for you. It's on your desk.
5. My son has visited me ten times since he went to live in South Africa.
6. Our team has won the cup six times in the last ten years.
7. It's very hot today. A have drunk a litre of water already and it's only 10 o'clock in the morning.
8. That was a great book! I have finished it at the weekend.

PRE-FOCUS



In groups discuss the following three questions.

1. What are the main objectives of the African Nations Championships?
2. Who do you think is the best Mozambican footballer and why?
3. What are some of the advantages and disadvantages of being a famous sports person?

Task Cycle 1: Football

1.1 Reading for Specific Information

Do you remember the African Nations Cup match between Cameroon and Senegal on 20/2/02? Talk to a partner about what you remember.

Now answer the following questions.

- a) How long does the elimination process for the African Nations Cup tournament take?
- b) How many teams take part in the tournament?
- c) How often does the tournament take place?
- d) Who hosts the tournament?
- e) Who was the host nation in 2002?

Now read the text to check your answers.

Current Events: Sports in Africa

Between January 19th and February 20th, 2002 school children from all over Africa along with their parents and friends were glued^① to their radios and TV sets. What was so important? They had football fever! After an elimination process^② that lasted nearly six months, national teams representing 16 African countries earned the right to participate in the African Cup of Nations tournament^③, the premier^④ sporting event in Africa. The African Cup of Nations tournament takes place every two years and is hosted by a different African country each time. In 2002 the West African country of Mali hosted^⑤ the tournament.

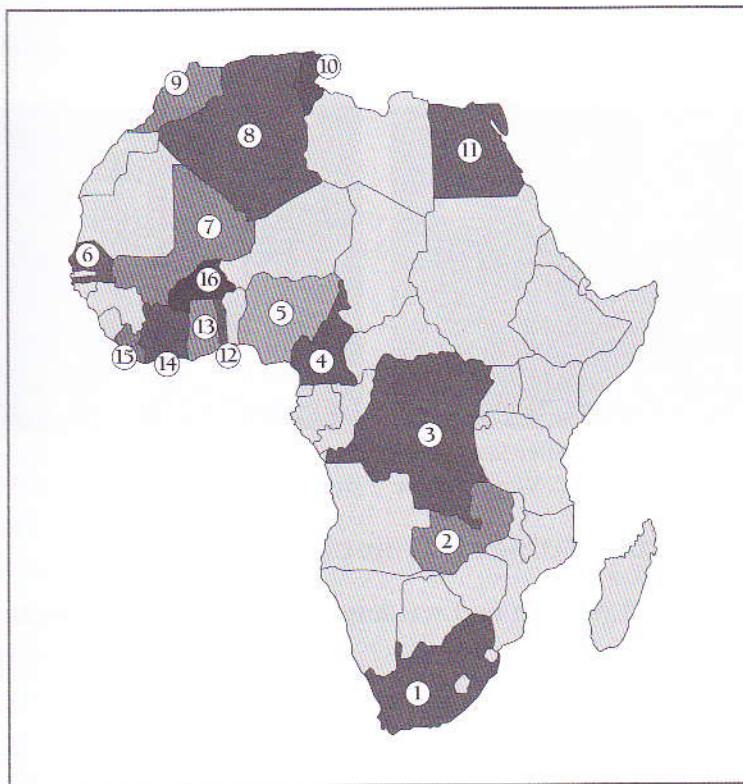


1.2 Vocabulary: Guessing from Context

What do the following words mean? Guess their meanings from the context. Now check your answers with your teacher.

1. glued
2. an elimination process
3. tournament
4. premier
5. hosted

1.3 Vocabulary: Names of African Countries



The sixteen African countries who earned the right to compete in the African Cup of Nations tournament in Mali in 2002 are numbered on the map. With a partner discuss the following three questions.

- a) Can you name the countries? Were the same countries competing in the 2004 and 2006 tournaments?
- b) From the map which region of Africa do you think has the strongest football tradition? Can you suggest any reason for this?
- c) Which region of Africa is least well represented in the African Cup of Nations tournament? Why do you think this is so?

1.4 Vocabulary: Football Terms

You are going to read about the final match of the tournament. Complete the text with suitable words or expressions.

After one month of _____^① matches that tens of millions of people listened to and watched all over the continent, the African championship came down to the final _____^② between Cameroon and Senegal. It was a tense and exciting match that after the _____^③ blew at full-time ended in _____^④. Neither team _____^⑤ in the twenty minute extra-time period. Consequently, the championship came down to a penalty shoot-out. The first two penalty shooters for each team made their shots. The third penalty kicker from Cameroon made his shot. However, to the great _____^⑥ of millions of fans in Senegal, the third penalty shooter for Senegal _____ his shot. Can you imagine how he felt?

(adapted from <http://exploringafrica.matrix.msu.edu>)



Fig. Jubilant Cameroonian players after Senegalese kicker missed his penalty shot. @ BBC World Service



Fig. Dejected Senegalese footballers after the missed penalty kick. @ BBC World Service

1.5 Language Focus: Subject/Object Questions

Look at the text in 1.4 again and write questions for the answers.

1. _____
One month.
2. _____
Tens of millions of people.
3. _____
Cameroon did.
4. _____
They defeated Senegal.
5. _____
The third Senegalese penalty shooter.
6. _____
He felt devastated.

Check your questions with your teacher. These questions include examples of both subject and object questions. Read the following explanation and then decide which questions in 1.5 are subject questions and which questions are object questions.



In object questions we use **do/does** in the present simple or **did** in the past simple. Here the **who** or **what** is the object of the sentence.

you want	do you want?	What do you want?
the game starts	does the game start?	What time does the game start?
you saw	did you see?	Who did you see?
the bus stopped	did the bus stop?	Where did the bus stop?

But we don't use **do/does/did** if the **who** or **what** is the subject of the sentence. Look at the examples.

subject		object
Somebody hit Pedro.		Abacar hit somebody.
↓		↙
Who hit Pedro?		Who did Abacar hit?
subject		object
Somebody paid the bill.		Maria paid something.
↓		↙
Who paid the bill?		What did Maria pay?

Make questions with **who** or **what** to find out who "somebody" is or what "something" is.

1. Somebody called me.
2. I called somebody.
3. Dulce said something.
4. That car belongs to somebody.
5. Something happened.
6. Somebody saw the accident.
7. The teacher saw somebody in his room.
8. I found something on the floor.

Who called you?
 Who did you call?
 What
 Who

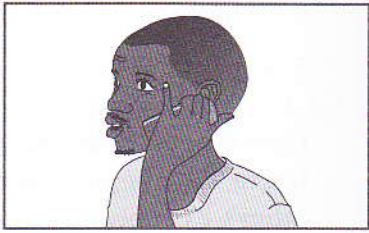
Now, you are talking on the phone but you can't hear the other person very well. With a partner make dialogues using these types of questions. Make up answers to the questions.

Example 1:

- A: Abacar lost _____
 B: Sorry! What did Abacar lose?
 A: His wallet.
 B: Oh, really! How awful!

Example 2:

- B: _____ lives in that house.
 A: Sorry! Who lives in that house?
 B: Laries does.
 A: Oh really! How interesting!



Now continue in the same way taking turns to start each dialogue.

1. My father bought _____ .
2. _____ leaves the airport at 10 o'clock.
3. I'm going to _____ at the weekend.
4. The basketball game starts at _____ .
5. _____ won the match on Saturday.
6. _____ drives his kids to work every day.
7. My family went to _____ on holiday last year.

1.6 Vocabulary – Football Terms

Work in pairs. Students A work together. Students B work together. How many of these football terms do you remember? Write definitions for each of them.

Example:

The home team

This is the group of 11 players who are playing in their own stadium.

Students A

1. the half-time whistle
2. the referee and his linesmen
3. to shoot at goal
4. to tackle a player
5. to win a game

Students B

1. the final score
2. to miss a shot
3. to get injured
4. to lose the match
5. to pass the ball



Check your definitions with your teacher. Now work with a partner with a different set of expressions. Read your definitions to each other. Try to guess each other's expressions from the definitions.



Language focus: Dates and Numbers

Part A

Do you remember how to say numbers and dates? Practise reading the numbers below. Cover the words and practise reading the numbers. Test a partner.

Years	Football scores
1981 nineteen eighty-one	1-0 one nil
1998 nineteen ninety-eight	2-2 two all
2000 two thousand	4-3 four three
2008 two thousand and eight	0-0 nil nil
Cardinal numbers	
1 st first	16 th sixteenth
2 nd second	17 th seventeenth
3 rd third	18 th eighteenth
4 th fourth	19 th nineteenth
5 th fifth	20 th twentieth
6 th sixth	21 st twenty-first
7 th seventh	22 nd twenty-second
8 th eighth	23 rd twenty-third
9 th ninth	24 th twenty-fourth
10 th tenth	25 th twenty-fifth
11 th eleventh	26 th twenty-sixth
12 th twelfth	27 th twenty-seventh
13 th thirteenth	28 th twenty-eighth
14 th fourteenth	29 th twenty-ninth
15 th fifteenth	30 th thirtieth

Part B

On the next page there are two tables showing the History of the African Nations Cup. Some of the information is missing.

Divide into two groups: Group A and Group B. Group A students look at table A. Group B students look at table B. Write questions to ask another student to find out your missing information. When you have prepared your questions, check them with your teacher.

Now ask your teacher the questions to complete the first two lines of each table on the next page. Listen carefully to how he/she gives you the information.

Now complete the rest of the table by working with a student with a different table. Ask him/her for the other missing information.

Table A

Year	Edition	Host	N.º of teams	N.º of groups	Winner	Loser	Score
1990							
1994							
1998							
2000	22 nd	Nigeria & Ghana	16	4	Cameroon	Nigeria	4-3
2002							
2004	24 th	Tunisia	16	4	Tunisia	Morocco	2-1
2006	25 th	Egypt	16	4			

Table B

Year	Edition	Host	N.º of teams	N.º of groups	Winner	Loser	Score
1990							
1994							
1998	21 nd	Burkina Faso	16	4	Egypt	South Africa	2-0
2000							
2002	23 nd	Mali	16	4	Cameroon	Senegal	3-2
2004							
2006	25 th	Egypt	16	4			

Finally, with your partner can you complete the information on the 2006 African Nations Cup?

1.8 Language Focus: Questions

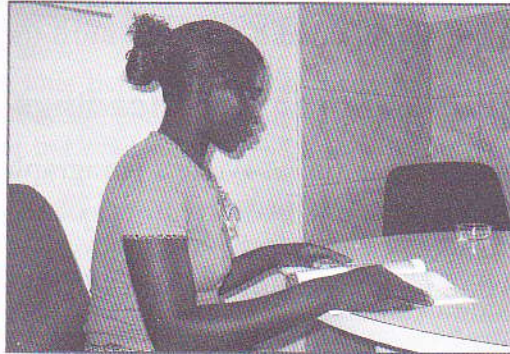
Make questions about a football match.

1. Where/match/take place?
2. Who/match/between?
3. How many people/watch/in the stadium?
4. Who/score/the goals?
5. How many goals/team A/score?
6. How many goals/team B/score?
7. a good match?
8. anyone injured?
9. What/score/at half-time?
10. Who/win?



1.9 Writing and Checking your Work

Choose a match you have seen recently (or make one up). Write a report on the match by answering the questions above. Make the report as dramatic as possible and try to include all the vocabulary and structures we have studied so far in this unit.



Now look at your writing and answer the questions.

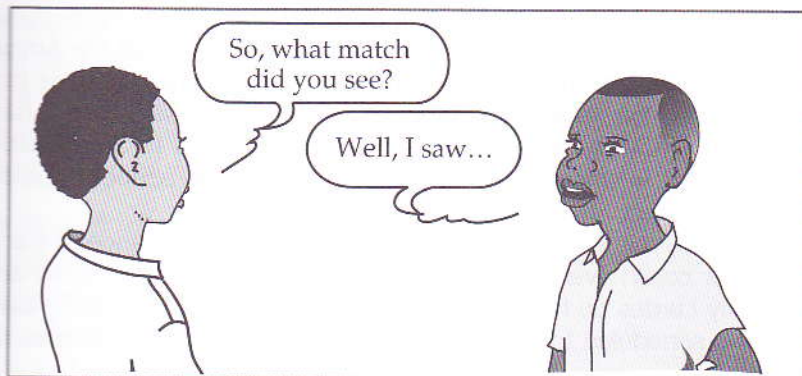
- Are your verbs all in the past tense?
- Did you use some interesting adjectives to make the report exciting?
- Did you include dramatic linkers? If not, add some of the words in the box to improve your report.

suddenly luckily unfortunately
 at first after that then finally
 as a result so consequently

- Finally, check your spelling and punctuation.

1.10 Speaking

Work in pairs. Ask your partner the questions in 1.8 about his/her match and answer his/her questions about your match.



Task Cycle 2: Biographies of Sports People

2.1 Interview

You are going to interview a famous sports person. With a partner, write a list of questions you would like to ask. Include questions about his/her background, education, successes, daily routine, leisure interests, and future plans. Check your questions with your teacher and keep them until the end of the Unit.

2.2 Summarising – Writing Paragraph Headings

Read the biography of Lurdes Mutola. Write a paragraph heading for each paragraph. The first one has been done for you.

Maria de Lurdes Mutola – Golden Girl of the 800 metres

1. Maria de Lurdes Mutola was born on 27th October 1972 in Maputo. She grew up in Bairro do Chamanculo, a poor suburb of Maputo, with her four brothers and sisters and six older children from previous marriages. While she was growing up, Lurdes much preferred playing football to going to school, which caused endless trouble at home. She was even sent away to live with her sister for a while. Her parents thought it was essential for her to get a good education and not to waste her time playing sport.
2. But the attraction of football was too great for her and she continued to play, without her parents knowing. Then, one day, when her father thought she was safely at school, he saw her playing in a female football tournament. He was so impressed with her performance that he had to recognise her talent. The family now agreed to her playing for Águia de Ouro in a team of male players on the condition that she studied hard at the same time. The team went on to win the cup but they were later disqualified for illegally having a girl playing for them. Lurdes felt she was to blame for the disqualification and never played in the male league again.
3. She continued to play in a female team but the official competitions were not up to her standard. It was then that José Craveirinha realised that it would be impossible for her to succeed in the male-dominated world of football and suggested a change of direction to the world of athletics. He introduced her to his son, who was a coach at Desportivo de Maputo. Lurdes was finally allowed to train in sport with the blessing of her parents as long as she still carried on with her studies. At first she did not like the intensive training required for athletics but she was persuaded to continue as she showed immense potential.
4. In 1988, at the age of 15, she won a silver medal in the 800 metres at the African Championships. In 1990 she won Gold at the African Championships in Cairo but at this time she had little competition in Mozambique and subsequently only trained hard in the run up to major events. Then, in 1991 she was finally offered a scholarship to go to Springfield High School, Oregon in the USA. This is where she met Margo Jennings the school track coach and her road to the top really started.
5. Margo was impressed by the intelligence, determination and perseverance of the young Lurdes and has remained her coach ever since. Since Margo has a fixed teaching schedule at school, she can't accompany Lurdes on her trips so they have developed training by correspondence. Margo faxes training schedules to Lurdes, wherever she might be and Lurdes has to monitor her training herself.





10. The life of an athlete is not easy. Lurdes Mutola gets up at 5.00 in the morning, in order to train for an hour or two. Then she goes home to do her homework, housework, gardening and to take care of her many dogs. She organizes her schedules and works on her business commitments before having lunch. In the afternoon, there is more training at the track or in the gym and only time to relax late in the evening. It is a 6 day a week schedule leaving a part of Sunday for her to walk her dogs and relax a little.

11. This level of competition also requires an athlete to stick to a rigid diet. She eats no fats or sugary foods preferring to eat vegetables. She avoids red meat and sugars and doesn't drink alcohol. She still remembers her Mozambican roots and likes matapa, prawns, Mozambican chicken and a good fish stew.

12. Lurdes has little leisure time but when she has time off she loves to walk her dogs. She reads, plays tennis and football, goes swimming and chats with her friends. She manages 10 or 15 days holiday a year but what little spare time she has is devoted to her Foundation and business commitments.

13. Lurdes has had a string of successes, the best known of which must be her Gold medal in the 500 metres at the 2000 Sydney Olympic Games and a bronze medal in Atlanta in 1996. However, in Athens in 2004 she was suffering from a hamstring injury and only came in fourth place. In 2005 she still had injuries and suffered losses to opponents she would normally beat. The year 2003 was her golden year when she took part in 25 races and didn't lose one. In honour of this achievement she was awarded the IAAF (International Association of Athletics Federation) Golden League one-million-dollar jackpot. This made her the highest-earning woman track athlete ever.

14. Part of these winnings have made it possible for Lurdes to set up the Lurdes Mutola foundation, which aims to contribute to the social development of Mozambique by encouraging and developing sports facilities that are easily accessible to the majority of Mozambicans. In addition, UNDP (United Nations Development Programme) appointed her Youth Emissary in September 2003 and she declared the campaign against HIV/AIDS her number one priority. As an emissary, she can highlight the positive relationship between youth and sports and, as a role model, she can be an inspiration for many boys and girls all over the world.

(adapted from www.flmutola.mz)

23 Reading Comprehension

Circle the best answer according to the text. Circle *a*, *b*, *c* or *d*.

1. When Lurdes was young, she
 - a) studied hard at school.
 - b) caused endless trouble at home.
 - c) played football whenever she could.
 - d) did exactly what her parents told her.
2. Her father started to support her in sport
 - a) when he saw her play football.
 - b) when she joined Águia de Ouro.
 - c) when her team won the cup.
 - d) when her team was disqualified.
3. Lurdes moved into athletics because
 - a) she couldn't play in the men's football leagues.
 - b) her parents forced her.
 - c) she preferred athletics to football.
 - d) she liked the more intensive training.

4. Lurdes met her coach Margo
 - a) at the age of 15.
 - b) at the African Nations Championships in 1988.
 - c) when she went to Cairo.
 - d) when she got a scholarship to study abroad.
5. Lurdes trains
 - a) for two hours in the afternoon.
 - b) every day except Sunday.
 - c) with her dogs.
 - d) with her coach.
6. Lurdes was awarded the IAAF Golden League jackpot because
 - a) she won an Olympic Gold medal in 2000.
 - b) she took part in 25 races in 2003.
 - c) she has had several injuries since 2004.
 - d) she won all her races in 2003.
7. The aim of the Lurdes Mutola Foundation is
 - a) to help Mozambique develop socially.
 - b) to build better sports facilities in Mozambique.
 - c) to make it easier for more Mozambicans to do sport.
 - d) all of the above.

2.4 Reading for Main Ideas/Discussion

"The life of an athlete is not easy."

The text mentions eight or nine difficulties that Lurdes has had to overcome in her career as an athlete. Read the text again quickly and list them. Compare your list with a partner and decide if any of them are the same as the ones you read about in Unit 3.

2.5 Language Focus: Past Tense

In this kind of biographical writing most of the verbs are in the Past Simple either Active or Passive. Here are some examples:

Past Simple Active

She **grew up** in Bairro do Chamanculo.

Lurdes **much preferred** playing football to going to school, which caused endless trouble at home.

Past Simple Passive

Maria de Lurdes Mutola **was born** on 27th October 1972 in Maputo.

She **was even sent away** to live with her sister for a while.



Past simple

Active: invited/sent/persuaded	Somebody invited us to dinner.
Passive: was/were + invited/sent/persuaded	We were invited to dinner.

Rewrite the sentences using the passive form.

- Her performance so impressed her father that he had to recognise her talent.
Her father...
- Someone later disqualified the team.
- Someone persuaded her to continue as she showed immense potential.
- Someone offered her a scholarship to go to Springfield High School, Oregon in the USA.
- The IAAF awarded her the IAAF Golden League million-dollar jackpot.

Now look back at the text to check your answers. All these sentences were in the Past Simple passive. The passive form is often used when the agent (who the action is done by) is not important.

2.6 Language Focus: Time Phrases

How many time phrases can you find in the text? There are lots!

Examples:

Maria de Lurdes Mutola was born on 27th October 1972 in Maputo.

While she was growing up, Lurdes much preferred playing football to going to school.

She was even sent away to live with her sister for a while.

Compare your list with a partner.

Now look at the table below and see if you missed any.

in 1988	at first
in September	one day
in the morning/afternoon/evening	then
on the 27 th October	subsequently
at 5 o'clock	finally
at the age of 14	ever since
at this time	now
for a while	while/when
for three years	before
during that time	

Now, complete the text below with time phrases from the box.

Tico Tico Bucane

Manuel José Bucane was born _____^① 1975 in Maputo. _____^② he was growing up, he played football on the streets of Maputo and _____^③ of 15 he signed for Desportivo Maputo where his football career really started. Four years later he found himself playing for Estrela Amadora in Portugal but _____^④ decided to come home as he experienced homesickness and some contract problems.

He _____^⑤ joined Ezenkosi where he served _____^⑥ eight years under Jomo Sono. _____^⑦ he was there, he thoroughly enjoyed working with the "Black Prince" and _____^⑧ was greatly loved by the Cosmos fans. He scored 88 goals _____^⑨ deciding it was time to move on.

He moved to America and _____^⑩ to China. He didn't find the States so good as soccer (football) is not as popular there as basketball or baseball. However, he learnt a lot in China where the league is very competitive and the play is pretty physical. _____^⑪ he earned a good salary but found the language and culture difficult to adapt to.

He has played for SuperSport _____^⑫ and doesn't intend to go abroad again. _____^⑬ he will stop playing league football and _____^⑭ he hopes to become a coach and help youngsters to achieve what he has achieved.

(adapted from www.sasoccer365.com)



2.7 Interview - Role Play

With your partner, look back at the interview questions you prepared in 2.1. Can you answer them all from the biography of Lurdes that you read? What other ones can you add from the information you now know? Add these to your interview.

Now find a different partner and role play the interview. Take turns to be the journalist and Lurdes. Try to use the Past Simple Active and Passive and the time phrases you studied in 2.6 in your interview.





UNIT 5

Literature

PRE-FOCUS

This Unit is about Literature. Spend a few minutes talking about these points with a partner or in a small group:

- What is "Literature"? If we looked in a dictionary, what definition do you think we would find?
- What is the best thing (book, poem, play) that you have ever read? Tell your partner or group what effect it had on you, and why?
- Do you think computer/Internet will replace books? If so, will that be a good thing?
- Why do people like stories, whether they are in the form of books, movies or plays in the theatre?
- Have you ever written an original story?

Task Cycle 1: Genres**1.1. Reading and Discussion: Matching Information**

In the column on the left, you can see various kinds of writing (called "genres"). In the column on the right, there are descriptions of each genre. Match the names with the descriptions.

Mystery / detective story	1	A	These are stories about people coming back from the dead, and are supposed to be scary to read.
Love story / romantic novel	2	B	This kind of book contains real facts, not invented stories, about any aspect of the world we live in.
Suspense / thriller	3	C	This is usually about murder or some other crime, and tells the story of how someone (maybe a policeman but not always) solves the crime and finds the criminal.
Horror	4	D	These are stories containing strange, terrible events, often with lots of blood and death. This genre is supposed to make you feel afraid.
Ghost story	5	E	This genre consists of stories about how the writer imagines the future. It often has to do with other worlds and other kinds of beings, but may also be about our own world in a future time.
Biography	6	F	This kind of book has an exciting, fast-moving story, full of action. It's the kind of book that Hollywood loves to turn into big movies.
Non-fiction	7	G	This is not an invented story. Rather it is the true story of a famous person's life, written by someone other than that person.
Science fiction	8	H	This is a story of an emotional attachment between a man and a woman, which puts lots of obstacles in the way of their relationship, but usually has a happy ending.



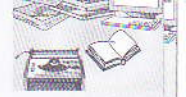
Do these kinds of literature exist in Mozambique? Can you think of any examples of any of them?

Put these genres in your order of preference, from most preferred to least preferred. Give your favourite genre 10 points... See which is the most popular genre in the class.

Reading: Skimming for the Main Idea

When a novel is published, the publishers usually put something on the back of the book to attract people's attention and make them want to buy it and read it. This is sometimes called the publisher's "blurb". Here are some "blurbs" from different kinds of novels. Read them all as fast as you can, and divide them into three groups of two according to the genre.

1. A secret organization plans to assassinate the French president, General de Gaulle. Their leader, Colonel Marc Rodin, decides to hire a professional, someone unknown to French police. He and his men choose "the Jackal". Can police detective Claude Lebel prevent the killing and save the President's life?
2. Some people do not really die. Things are not what they seem. In these six stories, strange things happen. Someone returns to catch his own murderer, another to find stolen money, and a third to find money lost for hundreds of years. A man even returns from hell, but only for a short time. Six stories to make your hair stand on end, written by masters of fear.
3. Anne and Brian both got divorced when they were young, and after the agonies of separation, both of them are unwilling to commit themselves to a new relationship. They pretended to be indifferent to each other; they try to ignore the unmistakable chemistry; they try to resist each other as hard as they can. But a series of coincidences – and a little help from their friends – gradually brings them to the realization that what must be must be. Finely drawn characterization and a moving story of human destiny.
4. The world's peaceful now. People are happy. They get what they want and they never want what they can't get. They're well off. They're safe. They're never ill. They're not afraid of death. They know nothing of passion and old age. They don't have to worry about mothers and fathers. It's the year AF 632, and the breeding and conditioning of humans by scientific methods have created worldwide stability and happiness. Or have they? When John is brought from the Savage Reservation to the New World, he brings passion with him. Suddenly, the values of the New World are thrown into perspective.
5. A big, friendly dog chases a rabbit into a hidden underground cave – and wakes a sleeping evil that is more cruel than death itself. The little town of Castle Rock is about to be invaded by the most hideous menace ever to ravage the flesh and consume the mind.
6. Cassie Johns is a lively young author on the brink of success. Driving through some beautiful countryside to a party, she gives a lift to an attractive young man wearing the uniform of an Air Force pilot. She thinks he is going to the party too, but is disappointed when there is no sign of him there. Despite all warnings, Cassie becomes obsessed by the pilot. This story, blissful and poignant, takes Cassie into a war-torn past where old passion burns and becomes entwined with new.



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1.3 Language Focus: Guessing from Context

When you were reading the text in 1.2, you probably met a lot of words that you didn't know.

- Did you try to look all the unknown words up in a dictionary?
- Did you give up trying to read that text and go on to the next one?
- Did you ask someone for the meanings of all the words you didn't understand?

None of these strategies is the best way to improve your vocabulary while reading. It is often enough just to get the main idea, to guess at the approximate meanings of words, and to keep reading as fast as you can just for the story. If an unknown word is really important, it will come back again and again, and in that case, either you can look in a dictionary, or the meaning will become clearer from the context.

In these extracts, without using a dictionary, say which of the words in brackets you think is nearest to the meaning of the unknown word. (Or maybe you already know the words, so you don't need this exercise!)

1. Fresh pain seized Paul's body. "Nearly finished," she said.
(filled / left)
2. She poured water over the flames.
(put a little water / put a lot of water)
3. His victim had bent forward to give the traditional kiss after the salute, and the bullet had passed a centimetre behind the moving head.
(a kind of gun / the thing that comes out of a gun)
4. He arranged himself in the passenger seat, one long leg at a time. Then he pulled his knees almost up to his chin. "Push the seat back," she told him.
(a part of the feet / a part of the arms / a part of the face)
5. I realized I was dead, and I opened my mouth to scream, but no sound came out.
(make a loud noise / speak / laugh)
6. Her eyes seemed to move around the room aimlessly. It was a relief for her to notice something on the floor.
(lose something on the floor / see something on the floor / put something on the floor)
7. "Push the seat back," she told him, and lifted the catch... to release the seat, and it slipped backwards.
(a part of the man's uniform / a part of the car)... (moved / made a noise / opened)



Which bits of the context helped you to make your guesses? You can see that it is often enough just to get an approximate idea of the word, to be able to continue reading without stopping.

On your own, read this paragraph from one of the books we looked at in 1.3, and try to understand as much as possible, guessing the words you don't know:

I didn't enjoy the helicopter trip out to the oil-rig. I'm used to planes. I've flown planes, and once I even owned a piece of a charter airline, but helicopters are not for me. Not even in fine weather. And the weather that morning was indescribable. We swayed and rocked from side to side, and plummeted suddenly then soared up again, and nine-tenths of the time we couldn't even see where we were going because the windscreen wipers couldn't cope with the deluge of rain that lashed against the windscreen. But Petersen was a fine pilot and the twenty-minute journey was soon over. We touched down on the landing-deck of the X13 shortly after ten o'clock in the morning. It took six men to hold the machine steady while the general, Vyland, Larry and I slipped down the extension ladder. Petersen gunned his motor and took off again just as the last of us reached the deck, and he was lost in a blinding flurry of rain inside ten seconds. I wondered if I would ever see him again.

(Adapted from Alistair Maclean, *Fear is the Key*, Fontana)

Now, with a partner, or in small groups, talk about what is happening in the paragraph, and see if you can agree about the meanings of the difficult words, especially the following:

indescribable	sway	rock	plummet	soar	cope with
lashed	touched down	shinned	gunned his motor		flurry

Did you understand enough of the paragraph to answer these questions? In each case, point to the parts of the paragraph that helped you answer the questions:

1. Was the narrator the pilot of the helicopter or a passenger?
2. Was the journey over land or over sea?
3. Was the weather good or bad?
4. Did they have a good view from the helicopter or not?
5. Did they reach their destination easily or with difficulty?
6. After they reached their destination, did the helicopter stay or did it leave again immediately?

1.4 Language Focus: The Order of Events in Narratives

In a narrative, it is important that the reader understands the order of events in the story. Read the samples in 1.3 again, and see how many ways there are of establishing chronological order. Discuss this with others too. Do this before continuing to read.

Did you mention these examples in your discussion?

A. To show the sequence of events in narratives, it is often enough just to write the events in the correct order:

- She bent down again and picked up the yellow bucket. She poured water over the flames. Paul screamed again. She stood up and looked at him.
- "Look at this," Burkin said. He held up some rubber gloves. They found clothes – shirts, trousers and coats, all clean and wrapped in plastic bags. The two men examined the floor.

B. Simple linkers like AND, BUT

- I realized I was dead, **and** I opened my mouth to scream, **but** no sound came out. I tried to stand up **but** I was pushed back down onto my chair.
- "Push the seat back," she told him, **and** lifted the catch to release the seat, **and** it slipped backwards. He stretched his legs, relief on his face, **and** smiled.

C. Simple sequencing linkers like THEN:

- She started to walk out of the room **and then** turned and said, "Don't blame me for this. It was your own fault."
- She slowed again and stopped, **then** leaned over to open the passenger door.

D. Using the past perfect (auxiliary HAVE + 3rd form of the verb):

- Half a second later, he was looking down at the square, unable to believe his eyes. His victim **had bent** forward to give the traditional kiss, **and** the bullet **had passed** a centimetre behind the moving head.

Now read this paragraph from a novel in the thriller genre, about an emergency at an airport. The writer uses some of the same linkers, and some different ones. Can you identify them?

Joe reached the main road to the airport. He had left home twenty minutes before, but he was making slow progress through the snow, and it got slower and slower. In the end, the truck stopped completely. Joe lit a cigar and decided to try and be patient. While waiting, he listened to the radio to see if there was any news about the delay, but there was nothing. After waiting five minutes, he lost patience and decided to get out of the car to investigate. He soon found the reason for the delay. The driver of a heavy truck had lost control of his vehicle in the snow, and was lying on its side, blocking traffic in both directions. There were policemen and a breakdown truck there, but nobody seemed to know what to do to move the truck. Joe decided it was his turn to take charge. He could smell petrol, so before approaching the policemen, he put out his hand. Ten minutes later, Joe was in control of the whole operation.



Which linkers are the same? In addition to those, there are three different ones, using AFTER, BEFORE and WHILE. If you didn't spot them before, find them now.

In addition to the linkers mentioned before (and, but, then, past perfect), we can establish the chronological order of events with after ...ing, before ...ing and while ...ing.

- After waiting for five minutes, Joe lost patience.
- Before approaching the policemen, he put out his cigar.
- While waiting, he listened to the radio to see if there was any news

Notice that when you use **prepositions + ing**, the subject is the same in both parts of the sentence (i.e. Joe waited and Joe lost patience; Joe approached the policemen and Joe put out his cigar; Joe waited and Joe listened to the radio).

Combine these pairs of sentences using the three linking methods just described. In the first group, the first sentence occurs before the second one. In the second group, the second sentence occurs before the first one. In the third group, they occur simultaneously. There are different ways this can be done, and an example is given to get you started:

GROUP 1

1. João played football for an hour. João went to school.

Example:

After playing football for an hour, João went to school.

Before going to school, João played football for an hour.

2. The team played well all season. The team reached the final.

3. Josué talked to them for twenty minutes. Josué persuaded them to do as he wanted.

4. Pedro filled up the tank. Pedro set off on his three hundred-kilometre journey.

5. Dulce checked the mailbox. Dulce opened the front door.

GROUP 2

1. Cledson passed the driving test. Cledson took five driving lessons.

2. Edgar phoned for an ambulance. Edgar saw the accident.

3. Raíma went to bed. Raíma cleaned her teeth.

4. They left about midnight. They played cards all evening.

5. António took the dogs for a walk. António fed the dogs.

GROUP 3

1. Marta ate her dinner. Marta watched TV.
2. They waited for Dulce. They had a beer and talked.
3. Chica did her homework. Chica listened to music.
4. Arturo drank his coffee. Arturo watched the crowds carefully.
5. Manuel sang happily. Manuel washed his car.

Finally, re-write this paragraph using a variety of the linkers that we have seen in this section. You can change the order of the sentences if you like, to improve the narrative, but then you must use the right linker to make the order of events clear. For example, it would be more interesting to begin the paragraph "Matthew woke up at 5:30 in the morning in an empty house."

Anna and Matthew had a terrible argument about something really silly. Anna left the house at ten o'clock and didn't come back. Matthew woke up at 5:30 in the morning in an empty house. He smoked his first cigarette. He lay thinking about the night before. He had a long cold shower. He put on the same clothes as the day before. He went into the kitchen. The remains of last night's dinner were still on the table, and a little (but only a little) in the bottom of the bottle of whisky. He picked up his phone. He looked at it for a few minutes. He quickly drank down the rest of the whisky to give himself courage. He dialled Anna's mobile number. No answer. He got up. He cleared the table. He formulated a plan. He went to the drawer where he kept his gun. He checked the gun was loaded. He put it in his pocket. He sat down on the sofa. He closed his eyes.

1.5 Language Focus: Compound Words

English likes to put two words together to make a new one. Look at these examples from the previous texts:

- a good-looking man
- a fast-moving story
- a full-sized adult
- the twenty-minute journey

You can see that we can form compound adjectives in a lot of different ways. So

- A man who looks good is a good-looking man.
- A story that moves fast is a fast-moving story.
- An adult who has reached his or her full size is a full-sized adult.
- A journey that takes twenty minutes is a twenty-minute journey.

See if you can guess compound adjectives for the following. The adjective isn't always logical, so you just have to guess!



1. An animal (a reptile) which has cold blood is a _____
2. A person who has a kind heart is a _____
3. A book that has five hundred pages is a _____
4. A child who behaves well is a _____
5. A part of the country that has a dense population is a _____
6. A peace which lasts for a long time is a _____
7. A man who is a hundred years old is a _____
8. A car which has two doors is a _____
9. A race which is forty kilometres long is a _____
10. A job which takes only part of your time is a _____
11. A job which fully occupies your time is a _____
12. A sports event that lasts for two days is a _____
13. A train that doesn't stop between its point of departure and its destination is a _____
14. A figure that has five sides is a _____
15. Literature which was written in the twentieth century is _____

Compare your guesses with the rest of the class and then check with your teacher. How many did you guess correctly? Memorize the rest.

1.6 Dramatic Dialogue

Two friends have both just seen the movie *Deep Impact*.

Edgar: Hey, Marta!, I saw a great movie last night. *Deep Impact*. Have you seen it?

Marta: Oh, yeah, I saw it last week. So you enjoyed it, did you?

Edgar: Absolutely. Best thing I've seen in years.

Marta: Mm, do you think so? I don't know. I think the effects were much better in *Jurassic Park* and all those dinosaur things.

Edgar: Well, yeah, that was good too.

Marta: Yes, and *Titanic*. That actually made it to number one. But this one was a bit blah, I think. It got quite boring after a while.

Edgar: Wow, you're hard to please!

Marta: No, not really. Sure, there were good bits in it. Like the cast. I really like Robert Duvall, and that what's her name?

Edgar: Tea Leoni?

Marta: Yeah, her. Actually, I think I know what was wrong with the film.

Edgar: Oh, yeah. What was that?

Marta: Too many characters, too much going on.

Edgar: Oh, I don't know about that...

Marta: And the reporter's family. What's that got to do with anything? All those life histories. It got quite boring after a while.

Edgar: Well, I wasn't so bored, but you might have a point.

Marta: You bet I do.

Edgar: But anyway, I'm going to see it again tonight. Do you want to come?

Marta: Well, if you're paying...

Edgar: Ha!

1.7 Language Focus: Adjectives ending in -ed and -ing

In the dialogue Marta said:

- "It got quite **boring** after a while."

to which Edgar replied:

- "Well, I wasn't **bored**, but you might have a point."

So, Marta thought the film was **boring**, i.e. she was **bored** by the film. Edgar didn't think the film was **boring**. He wasn't **bored** by it.

A lot of adjectives have *-ed* (Refers to what somebody feels) and *-ing* (the cause of feeling) versions, corresponding to passive and active uses. Choose the right alternative in each of the following sentences:

1. The children were very tiring / tired after a long day's work.
2. OK, I can see you're not very interested / interesting in my story, so I'll just stop, shall I?
3. When Edgar passed his driving test first time, we were all very surprised / surprising.
4. The spectators went crazy. The basketball match was very excited / exciting.
5. She never studies. It's not surprised / surprising she failed her exams.
6. I didn't understand that explanation at all. I'm really confused / confusing now.
7. He's so negative about everything. Just listening to him makes me depressed / depressing.
8. Even though you're sitting down all the time, it can be very tired / tiring working at a computer all day.
9. It isn't definite that we're getting a holiday next week, so don't get too excited / exciting!
10. I'm going to read that book again. I thought it was very interested / interesting.

Now choose five of the following adjectives (or more if you like) to make an exercise for your classmates, similar to the sentences above. When the teacher has checked your exercise, give it to some other people to do, then correct it when they have finished.

disappointed / disappointing
 exhausted / exhausting
 frustrated / frustrating
 disgusted / disgusting
 satisfied / satisfying
 amused / amusing

embarrassed / embarrassing
 frightened / frightening
 fascinated / fascinating
 interested / interesting
 annoyed / annoying
 shocked / shocking



Language Focus: Agreeing and Disagreeing

In previous Units, we have practised expressions for agreeing and disagreeing. Cover the box below and try to remember as many of them as you can:

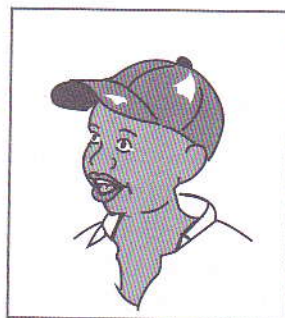
Agreeing	Disagreeing
Definitely, I agree. Definitely! I suppose you're right. Well, yes, that's true I suppose. I think so, too.	I'm not so sure. Oh, no. I don't agree with you there. Are you really sure about that? Mm, I'm not so sure about that. OK, let's just agree to differ on that one. I don't think so.

The dialogue between Marta and Edgar in section 1.6 introduces some new ones:

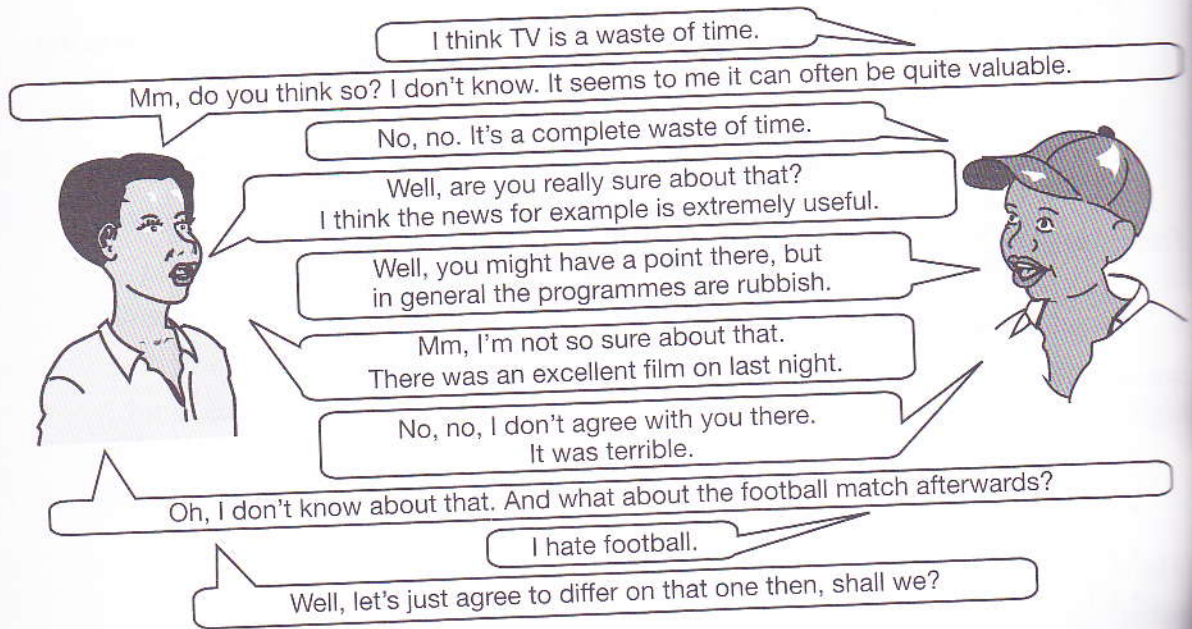
- Wm, do you think so? I don't know.
- Absolutely.
- Oh, I don't know about that.
- You might have a point, (but on the other hand)

Practise the expressions and try to memorize them, by working with a partner. One person chooses one of the statements below, and the other person reacts with an agreeing or disagreeing expression. Take turns to begin.

1. Television is a waste of time.
2. Basketball is the best sport in the world.
3. People should work harder.
4. It's better to live in cities than in the country.
5. Young people are just too lazy these days.
6. Cigarettes should be banned.
7. Smoking in public places should be prohibited.
8. There should be a maximum speed limit of 40 kilometres an hour.
9. Film stars earn too much these days.



Now practise some more with Opinion Ping Pong, like these two people:



Work in pairs and go through the list again. This time, try to keep the conversation going as long as possible.

1.9 Writing

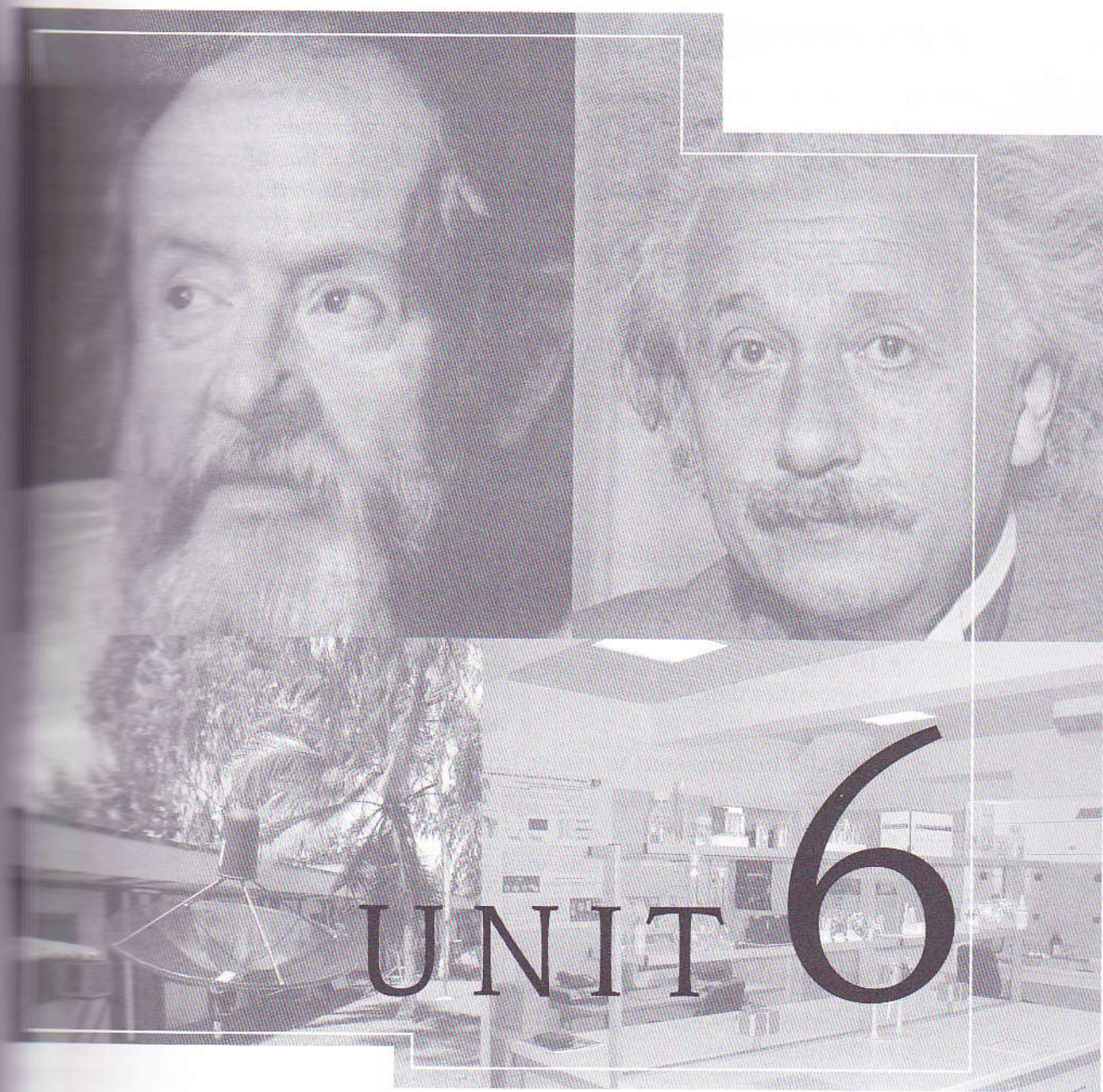
In 1.6, we read a dialogue, which could be part of a script for a film or a play in the theatre or on TV. In a novel, the writer can tell us about the personality of the characters, but in a film script or in a play, the personality of the characters is revealed to us by what they say.

- What kind of person do you think Edgar is?
- What about Marta?
- Do they know each other well?
- Who do you like better, Edgar or Marta? Why?
- Can you imagine what they look like?
- Can you imagine how they talk?

Now try writing a short extract from a film script or a play for TV or for the theatre. For example:

- A scene between a policeman and a man who he suspects of being a thief.
- A salesman trying to sell a bad car to someone who knows nothing about cars.
- Two students talking after a difficult test, one of whom enjoys school and the other who hates everything about it.

Remember that you must give them clear personalities, and try to make the personality obvious from the words they speak.



UNIT 6

Science I – People



PRE-FOCUS

The human brain is not constructed to deal with very large numbers. We are OK up to ten, and we have a fair idea of hundreds and maybe thousands. But a million is a difficult number to imagine. A billion is impossible – it's just a line of zeros! So it's difficult for us to really understand the vast lengths of time involved in the evolution of our planet, and more specifically, of our species. Try this – imagine that the whole history of Earth is condensed into one year, three hundred and sixty five days. The Earth is formed just after midnight on January 1st. According to this time scale:

1. When did the continents start moving into their present positions?

- 10th January
- 4th February
- 16th March
- Some other date?

2. When did the dinosaurs become extinct?

- 3rd March
- 1st April
- 18th April
- Some other date?

3. When did humans start to evolve from apes?

- 30th March
- 12th July
- 1st August
- Some other date?

4. When was the last ice age?

- 16th May
- 10th June
- 30th June
- Some other date?

5. How long is our recorded history?

- From 10th September
- From 30th September
- From 9th October?
- From some other date?

Discuss this in groups, write your guesses on the board, then check in the answers section.

Task Cycle 1: The Origin of the Human Race

Reading for the Main Idea

This is a quotation from Richard Dawkins, a Professor at Oxford University in England, in his book, "The Devil's Chaplain".

"We have Africa in our blood and Africa has our bones. We are all Africans."

Read the following passage and see if it agrees with Professor Dawkins' statement.

Paleontology is the study of ancient bones. Extremely boring, don't you agree? Now an even longer word - paleoanthropology, which is the study of ancient human bones. Yawn! What's on the other channel? Very few of these ancient bones have been found. "Not enough to fill the back of a pick-up truck", as one paleontologist said. But through them, experts have been able to learn a lot, and what they have learnt is not boring at all. It's the story of the origin of the human race!

Millions of years ago, the isthmus of Panama rose out of the sea and joined North and South America. This had unexpected consequences because it cut the flow of water from the Pacific to the Atlantic, diverting warm currents, and causing a sharp ice age in northern latitudes and a cooling and drying in Africa. Jungle gradually turned into savanna, and some kinds of apes came out of the disappearing trees and started to live on the grassy plains. They were "hominids" - ape-men. And the most famous of them has been given the name "Lucy". Lucy was discovered in 1974 in Ethiopia. She lived 3.18 million years ago. She could walk, and was also a good climber. She had excellent eyesight, but a poor sense of smell.

The situation lasted for about three million years. Then one line of these ape-men started changing. They became better adapted to life on the plains. Their feet became more suited to running, their hips changed, and their spines developed a slight curve so that the weight of the upper part of the body was better centred. More importantly, the skull changed, to hold a brain that was twice as big as that of the first ape-men. They stood upright, and were a metre and a half tall. They were *Homo erectus* - Upright Man.

Homo erectus is the dividing line; everything before him was ape-like. Everything after him was human-like. They made better tools, they hunted together, they had improved communication, they used fire, and maybe language. To other hominids, they must have seemed terrifyingly large and powerful. They were the velociraptors of their time. Their numbers increased and then, about two million years ago, they spread out of Africa to the rest of the world, developing into various species, such as the Neanderthals in Europe. But these were not modern humans. So how do we get from Neanderthals to modern humans?

There is disagreement about the next stage of human development. There are two theories. One says that modern man - *Homo sapiens* - evolved out of the Neanderthals and other species. The other theory says that they evolved only in Africa after the first wave had already left, and then, about a hundred thousand years ago, they spread out again, in a second wave, around the world, overcoming the Neanderthals and other species, all of which went extinct. These two opposing theories have caused much heated debate in the world of paleoanthropology.



The following statements are paraphrases of parts of the text. Put them in the right order. If you can't do it from memory, scan the text again to find the parts they refer to.

A.	Some species changed their way of living in Africa as a result of environmental changes.
B.	A species that remained in Africa continued to evolve and then a second wave of migration from Africa took place.
C.	Somebody lived in one area of Africa whose skeleton constituted an important paleo-anthropological find.
D.	Geological and geographical changes in another part of the world caused climatic changes in Africa.
E.	The superior species moved out of Africa and settled in various parts of the world.
F.	One particular species seemed to start evolving faster than other similar species, and probably came to dominate them.

1.2 Listening and Note Taking

The teacher will read a text to you which suggests a solution to the problem described at the end of section 1.1. As you listen, take simple notes about the following:

1. What information is repeated from the reading in 1.1?
2. What names are given to the two opposing theories?
3. Which theory is now usually considered to be the correct one?
4. How was that conclusion reached?

1.3 Language Focus: Vocabulary of Change

The text in 1.1 describes the slow changes that took place over millions of years in the evolution of humans. The following vocabulary has something to do with the concept of CHANGE. Look at each phrase and see if you can remember the context in the original text. Who do *something*, *someone*, and *somewhere* refer to? The phrases are listed in the same order as they appear in the text.

Work in pairs and take turns to ask each other subject or object questions (Unit 4, Task Cycle 1, Section 1.5) and answer them. Don't refer to the text unless you can't even guess the answer. Number 1 is an example.

1. Millions of years ago, something rose somewhere.
 Student A: What rose, and where did it rise?
 Student B: An isthmus rose between North and South America.
2. Something had unexpected consequences somewhere.
3. Something gradually turned into something else.

4. Something started **changing into** something else.
5. Someone became **better adapted** to something.
6. Something became **more suited** to something.
7. **More importantly**, something **changed**, becoming twice as big.
8. Someone was the **dividing line** between apes and man.
9. Someone's numbers **increased**.
10. Someone spread out of Africa, **developing into** something else.
11. According to one theory, someone **evolved out of** someone else.
12. According to the alternative theory, someone **overcame** someone else.
13. Someone went **extinct**.

Language Focus: "How" Questions

Match the following "How" questions with the answers in the second column. They refer to the text in 1.1 and 1.2, but try and do this without looking back at the texts.

1.	How many human fossils have scientists managed to collect altogether?	A.	Not very well. Her eyesight was excellent, however.
2.	How long ago were North and South America joined when the isthmus rose out of the sea?	B.	It seems to have been twice as big.
3.	How long ago did Lucy live?	C.	They used genetics.
4.	How well could Lucy smell things?	D.	About one and a half metres.
5.	About how long did the ape-men live on the savanna before Homo erectus started evolving?	E.	Not enough to fill the back of a pick-up truck.
6.	How big was Upright Man's brain in comparison to Lucy's?	F.	There are two.
7.	How tall was Upright Man?	G.	Millions of years ago.
8.	How many main theories are there which try to account for the evolution of humans?	H.	Not many, really. Between ten thousand and fifty thousand.
9.	How did paleoanthropologists establish that the Neanderthals and Upright Man were unconnected species?	I.	For about three million years
10.	About how many members of Homo sapiens left Africa in the second wave?	J.	About 3.18 million years.

1.5 Reading and Information Transfer

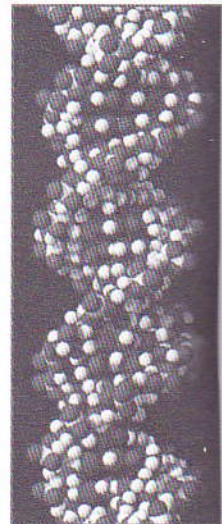
Read the following text and label the diagram with the terms given.

Deoxyribonucleic Acid (DNA)

DNA analysis has helped genetic scientists to trace the origin and evolution of the human race. We hear a lot about DNA analysis these days, for example, in forensics, to identify criminals, or to establish paternity when this is disputed. The media are full of stories of genetic engineering, in other words, how the DNA of animals, plants and even human beings, is being manipulated for different reasons. So what is DNA?

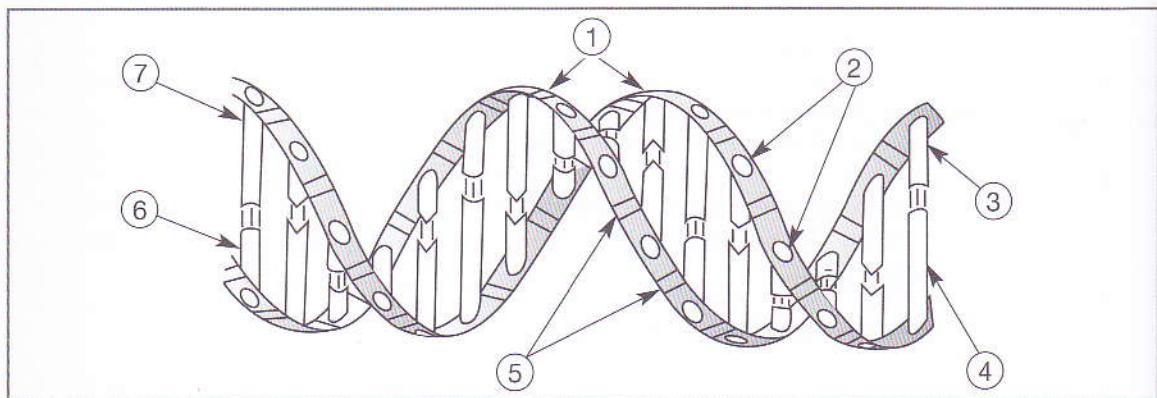
A simple definition is that DNA is the chemical found in the nucleus of every cell in our bodies. It is the substance that carries the genetic information needed to make proteins and to enable cells to reproduce. It has been called "the king of molecules", "the building blocks of life". Basically, it is the information needed for reproduction that is passed down from generation to generation. Each of our cells contains DNA in the form of large molecules called chromosomes.

The structure of the chromosome was discovered just over fifty years ago, and it is a beautiful thing. Each chromosome is in the form of a long double helix. The strands of the helix are chains of sugars and phosphates. The two helices in each molecule are linked together by cross-bridges made of pairs of organic bases, which are joined to the sugar molecules. There are four kinds of bases in the connecting bridges: adenine, thymine, cytosine and guanine, abbreviated to A, T, C and G. They work in pairs; if one half of a bridge is A, the other end is T. Similarly, if one end is C, then the other end is G. So, if you read the letters in sequence, you might get something like CAA-TTT-AAT and so on, along the whole length of the chromosome. These sequences spell out instructions to the cell. Different sections of the chromosome are called genes. It is the genes, or combinations of genes, that are responsible for making us (and every other living thing on Earth) what we are: tall or short, brown-eyed or blue-eyed, sociable or solitary, intelligent or... not so intelligent.



On the diagram, identify the following things:

double helix; the location of a sugar molecule; the location of a phosphate molecule; examples of adenine, cytosine, thymine, guanine



1.5 Vocabulary and Pronunciation: Verb-Noun Pairs

These pairs of verbs and nouns are from the texts in this Task Cycle.

First, cover the noun column on the right and test yourself to see if you know them all. Cover the verbs and work backwards.

Then mark the stressed syllable of each verb and noun. When you have finished, listen to the teacher to see if your pronunciation is correct.

Verb	Noun	Verb	Noun
abbreviate	abbreviation	evolve	evolution
achieve	achievement	explain	explanation
adapt	adaptation	focus	focus
agree	agreement	generate	generation
analyse	analysis	identify	identification
behave	behaviour	improve	improvement
combine	combination	increase	increase
connect	connection	interpret	interpretation
define	definition	occupy	occupation
describe	description	oppose	opposition
develop	development	originate	origin
disagree	disagreement	refer	reference
discover	discovery	replace	replacement
dominate	domination	reproduce	reproduction
establish	establishment	solve	solution

1.7 Discussion and Writing: Summarizing

The two texts in 1.1 and 1.2 contain an account of the origins of human beings. In small groups, discuss what the most important points are in the account, and what are subsidiary details. List the main points.

Then, still in groups, write a summary of the information, in not more than 120 words.

When you are happy with your summary, and when your teacher has checked it, each group should choose a spokesperson to read the group's summary to the class. Your task as you listen is to decide if any of the main points have been omitted. Make notes, and feed back to the reader when he has finished.

Task Cycle 2: Families

2.1 Discussion and Reading: Family Resemblances

Think for a few minutes about the following questions:

- Do you look more like your mother or your father?
- Do you have more of your mother's personality or your father's?
- If you have brothers and sisters, what about them? Which one do you resemble most? And which parent do they resemble most?
- Think about a family you know (other than yours). Can you see the resemblances and differences between the generations – grandparents, parents and children (and maybe grandchildren).
- What kind of resemblances are there? Are they physical or psychological or both?

Now read this short passage and discuss the questions at the end with a partner or in a small group.

"Ah, he's just like his Dad!"

A family has a new baby! The proud parents are showing the baby around to the rest of the family, and to their friends and neighbours. You will ALWAYS hear someone say: "Ah, he looks just like his father!" or: "Ah! She's got her mother's eyes!" And later on in the child's life, we might hear things like: "She's so musical. She got that from her grandfather." Or: "Yes, he's a great footballer. He got that from his father."



We all know that we inherit physical characteristics and personality traits from our parents. But how does it work? If three children all have the same parents, how can they be so different? Why don't they inherit the same characteristics? Depending on how much you have already learnt about genes and genetics, you will find that an easy or difficult question to answer in any detail.

There are twenty three pairs of chromosomes in the nucleus of each cell in the human body, which means we have forty-six in total. In each pair, one chromosome comes from our mother and one from our father. In reproduction, the male and the female both manufacture special reproductive cells called gametes (sperm and egg respectively), which contain only twenty three chromosomes instead of the normal forty six. These twenty-three consist of material from both the "mother chromosomes" and the "father ones". So, when the sperm meets the egg and fertilizes it, the new cell has the full number of forty six chromosomes again, and there is genetic information (that is to say, genes, or bits of chromosome) from the man's mother and father, and from the female's mother and father. And each time reproduction occurs, the mixture is different. This is why a couple's children are all different.

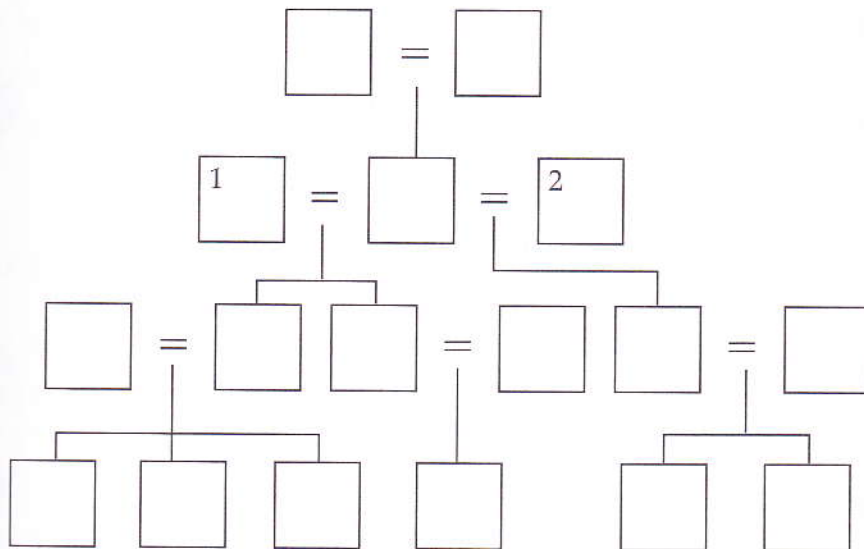
Now, based on what you have just read, decide if these statements are true or false. If you think it is false, say why.

1. Humans have forty-six chromosomes in their body, one in each cell.
2. We have twenty-three chromosomes in each cell of our body.
3. We get genes from both parents.
4. The man's sperm and the woman's egg are called gametes.
5. A gamete contains twenty-three pairs of chromosomes.
6. A man's sperm contains genes from the man's mother and father.
7. The female gamete – the egg – only contains genes from the woman's mother.
8. Both the male and the female gametes contain only half the normal number of chromosomes.
9. The normal number of chromosomes is restored when the female egg is fertilized by the male sperm.
10. All children are different because every time reproduction occurs, both the father and the mother contribute different combinations of genes.

2.2 Vocabulary: Family Relationships

Read this description of a family and complete the family tree with the names of the people.

This family tree shows four generations of a family. António and Chica got married and had one daughter, Dulce. Dulce married twice. The first time, she and Cledson had two children, Edmilson and Jacinta. In her second marriage, to Edgar, she had one child, a son called João. In time, João married Maria, and they had two children, a boy and a girl called Titos and Marta. Edmilson also got married. He and his wife Ovídia had three children, two boys called Josué and Manuel, and a daughter, Vanda. Jacinta married Pedro and had a daughter, Raima.



Make sure everyone in the class agrees about the family tree before going on to the next bit!

Look at your completed family tree, and complete the sentences. Number 1 is given as an example:

1. António is Edgar's father-in-law. In other words, he is Edgar's wife's father.
2. Chica is João's grandmother, i.e. _____
3. António and Chica are Josué's great-grandparents, which means _____
4. Marta is António's great-granddaughter. In other words, _____
5. Edgar is Jacinta's step-father. In other words, _____
6. Raíma is Vanda's cousin, which means _____
7. Jacinta is Josué's aunt. In other words, _____
8. João and Maria are Marta's parents. That is to say, _____
9. Jacinta is João's half-sister, which means _____
10. Pedro is Dulce's son-in-law, i.e. _____
11. Manuel is Jacinta's nephew. That's to say, _____
12. Vanda is Jacinta and Pedro's niece, which means _____

The complete list of relationships shown in the family tree is:



mother, father (parents)

son, daughter (children)

husband, wife

brother, sister

grandfather, grandmother (grandparents)

grandson, granddaughter (grandchildren)

great-grandmother, great-grandfather (great-grandparents)

great-grandson, great-granddaughter (great-grandchildren)

step-father, step-mother

half-brother, half-sister

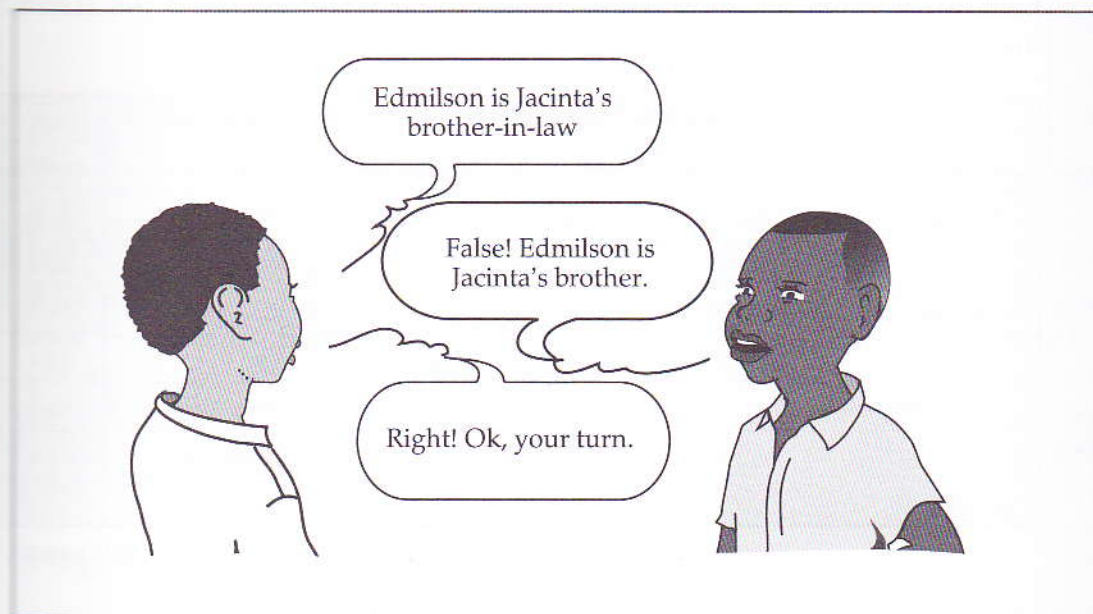
uncle, aunt

niece, nephew

cousin



Check that you know all of these expressions by working with a partner to make true or false statements about the family tree, like this:



Now imagine that you are João. Write a description of your family in the first person. If you like, you can begin My name is João. My mother and father are called Dulce and Edgar, and...

Finally, let's relate the family tree to our knowledge of genes and heredity. In that tree, which pair has more genes in common:

- Edmilson and Jacinta, or Cledson and Dulce?
- Titos and Marta, or Jacinta and João?
- Edgar and João, or Edgar and Edmilson?
- Josué and Manuel, or Titos and Marta?

2.3 Writing

Choose one (or both if you like!) of these writing tasks:

1. Write a description of your family tree, like the one in 2.2, and give it to a partner (or read it to him / her) to draw a tree from your written description.
2. Invent a family tree with all the relationships mentioned in 2.2, and then write a series of true / false statements about it for another classmate to solve.

2.4 Representing and Interpreting Information in Different Formats

Look at the table of information about city size and decide if the statements that follow are true or false.

The world's biggest cities in 1800, 1900 and 2000					
1800	Millions	1900	Millions	2000	Millions
Peking	1.10	London	6.5	Tokyo	28.0
London	0.86	New York	4.2	Mexico City	18.1
Canton	0.80	Paris	3.3	Bombay	18.0
Tokyo	0.69	Berlin	3.3	São Paulo	17.7
Constantinople	0.57	Chicago	1.7	New York	16.6
Paris	0.55	Vienna	1.7	Shanghai	14.2
Naples	0.43	Tokyo	1.5	Lagos	13.5

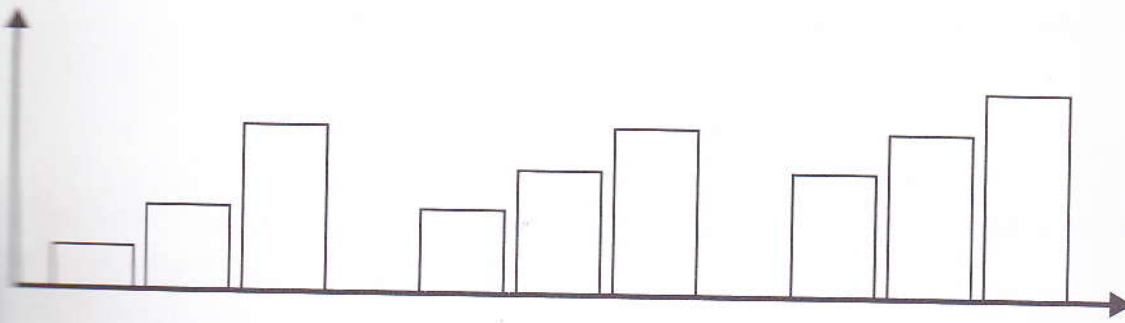
(Table adapted from *Sustainable Human Development*, 2002 Peace Child Charitable Trust)

1. Peking was the biggest city in the world in 1800.
2. In 1800, Canton was bigger than Paris.
3. In 1900, London was nearly twice as big as Berlin.
4. Chicago and Vienna did not grow between 1800 and 1900.
5. The seven biggest cities in 1900 were all bigger than the top seven in 1800.
6. Only one city appears in the top seven cities in all three centuries.
7. Tokyo was the largest city in the world in 2000.
8. In 2000, São Paulo was smaller than New York.
9. None of the seven largest cities in the world in 1900 were in the top seven in 2000.
10. London was the biggest city in the world in 1800.

Now look at this table of information comparing the size of three cities in three different centuries.

Date	London	New York	Tokyo
1800	0.86 m	0.6 m	0.69 m
1900	6.5 m	4.2 m	1.5 m
2000	7.4 m	16.6 m	28 m

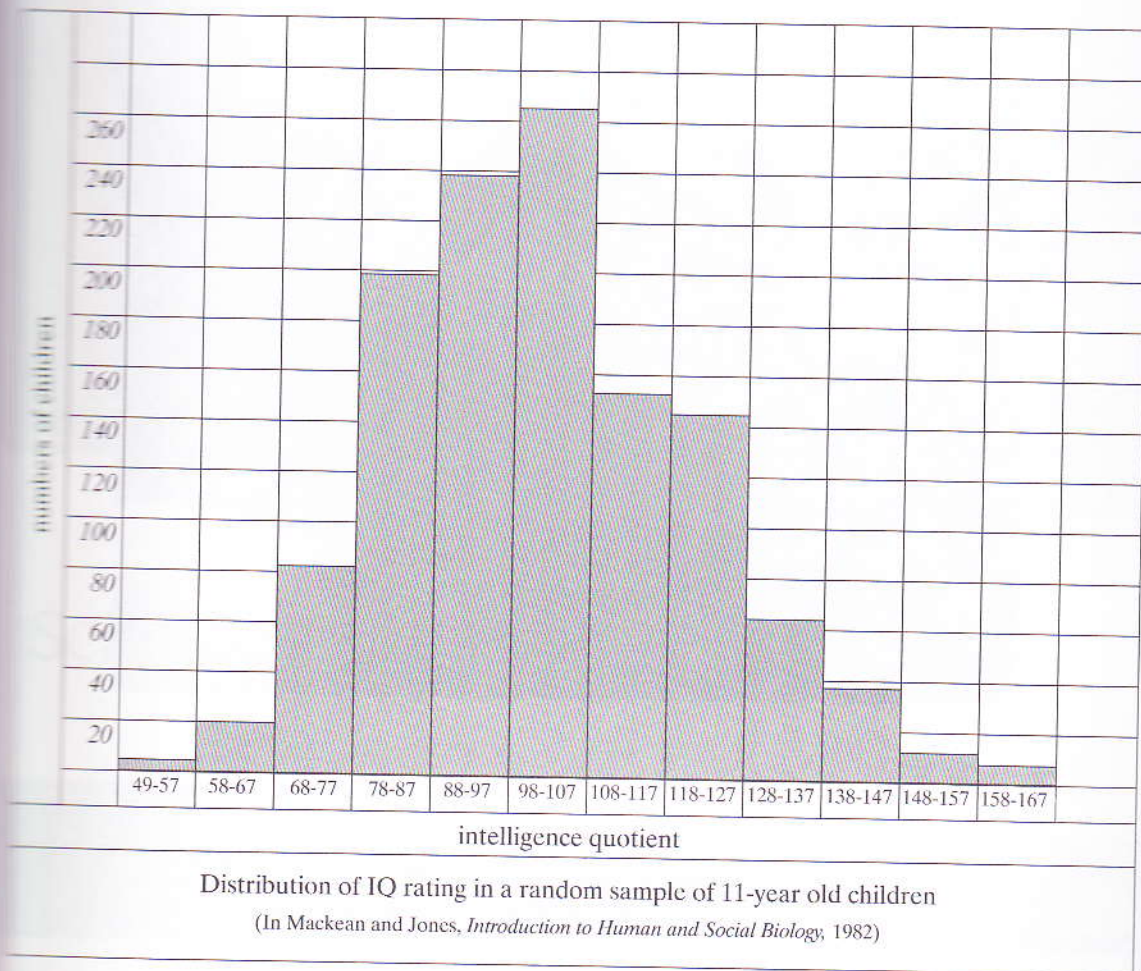
It gives exact numbers, but it is not visually easy to interpret. If we want to get a quick idea of the relative growth of the three cities we could make a bar chart. The approximate shape would be like this:



Why are there three groups of three? What does each group and each bar represent? What units of measurement would appear on the vertical axis (up the left side of the diagram)? What needs to appear under the diagram?

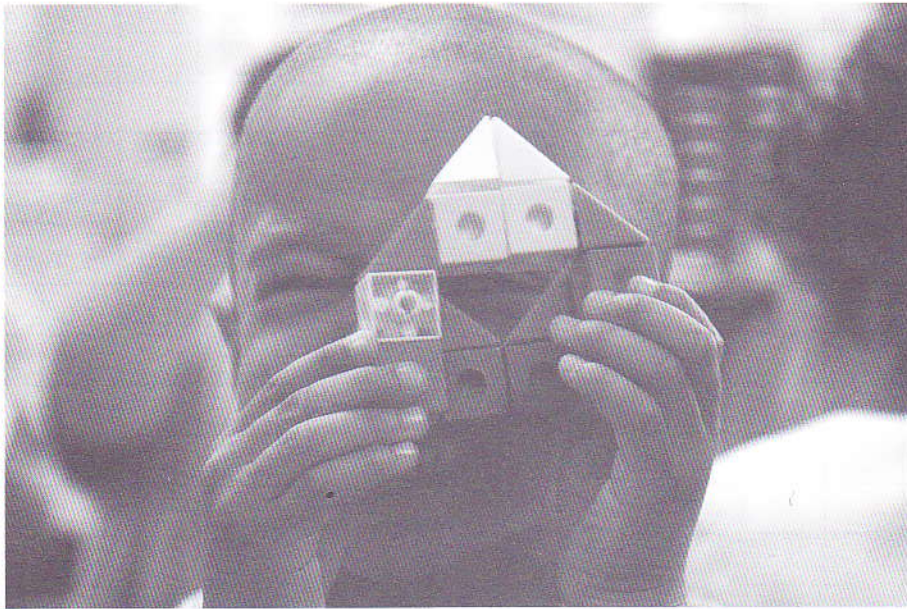
Also, the proportions of the diagram are all wrong! Use the information in the table to make an ACCURATE bar chart showing the relative growth of the three cities.

A slightly different form of bar chart is as follows:



Answer these questions with reference to the bar chart:

1. What was the purpose of this study?
2. What determines the height of each column?
3. In this bar chart, what is the variable on the horizontal axis?
4. How many children, approximately, were included in this study? How do you calculate this number? Why can't we give an exact number for this bar chart?
5. How many children were of average intelligence? What proportion is this of the whole sample?
6. What was the IQ of the most intelligent children in this study?
7. Why do two numbers appear at the bottom of each column? What do they represent?
8. Does this bar chart show that children's intelligence varies according to their age?
9. What was the IQ of the least intelligent children in this study?
10. Is it true that there were more children in the least intelligent group than in the most intelligent?





UNIT 7

Science II - Technology



PRE-FOCUS

This Unit is about technology. Some people are not comfortable with modern technology and say they would like to "turn the clock back", in other words, return to simpler times. Other people really enjoy constant change and think that all progress is good. Do you agree that all progress is good? Is there such a thing as "bad progress"? Discuss it briefly with some of your classmates.

Here are some dictionary definitions of things that we will meet in the course of this Unit. Can you identify what they refer to? When you have finished the unit, come back to this page and see if you were right, or if you want to change your mind about any of your answers:

- An instrument or apparatus which uses power, such as electricity, to perform work.
- A rigid body which is supported by, and turns on, a fulcrum.
- An electronic machine that can be supplied with a program and can store and recall information.
- Anything that has mass and occupies space.
- A high-density compact disk for storing large amounts of data, especially high-resolution audio-visual material.
- Being in the process of passing out of use or usefulness.
- A small rodent of the *Muridæ* and *Cricetidæ* families, characteristically having a pointed snout, small rounded ears and a long almost hairless tail.
- An aircraft that derives its lift from blades that rotate about an approximately vertical central axis.

Task Cycle 1: Machines

1.1 Discussion and Listening

Tell a classmate the meanings of these words:

Matter, Machine

Do you both agree on the meanings? Is there only one meaning for each word? Now listen as the teacher reads a text and answer the questions that follow.

1. Why was John upset?
 - a) Because he was in a physics lesson.
 - b) Because he couldn't answer the teacher's question.
 - c) We are not given the reason.
 - d) Because he had his head on the table.

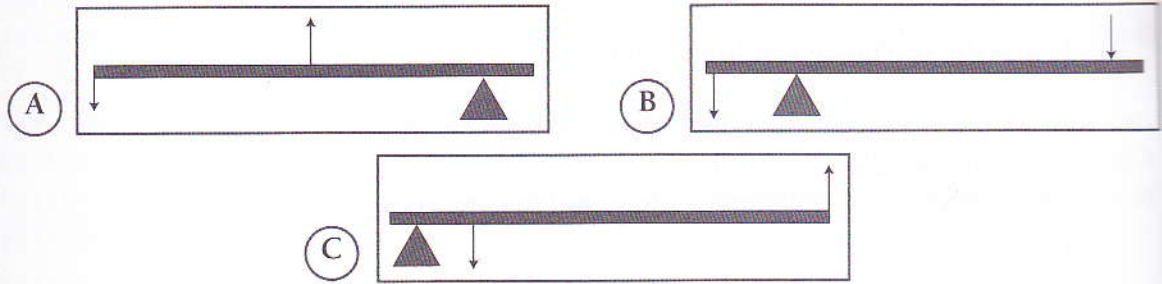


2. When the teacher saw John, he
 - a) felt sorry for him.
 - b) asked him a difficult question.
 - c) told him to lift his head from the table.
 - d) started the lesson immediately.
3. When the teacher asked John a question,
 - a) he answered it correctly.
 - b) he put his head down on the table.
 - c) he answered a different question.
 - d) he understood the question but couldn't answer it.
4. John's answer
 - a) gave the general English sense of the word.
 - b) contained a definition of the word "machine".
 - c) was funny because he confused the scientific and everyday senses of a word.
 - d) was completely unscientific.
5. The word "machine"
 - a) is always used incorrectly by most people.
 - b) has a general sense and a specific sense.
 - c) only applies to things which are driven by electricity or petrol.
 - d) is not defined in this text.
6. A chain saw and a road digger
 - a) are not machines at all.
 - b) are not machines if they need petrol or electricity.
 - c) are machines in one sense of the word.
 - d) are machines because they involve two forces.
7. In its restricted physics sense, a machine
 - a) does our work for us.
 - b) needs a lot of effort from us.
 - c) needs fuel to operate.
 - d) involves two forces acting at different points.
8. According to the text,
 - a) we always know a machine if we see one.
 - b) there are some things that we wouldn't call machines if we didn't know the restricted definition.
 - c) some things are machines in the general sense, but we don't recognize them.
 - d) some machines do not do work.
9. According to the text,
 - a) machines, in one sense, save us work, but not in the other sense.
 - b) a machine like an electric drill does not save us work but makes it easier.
 - c) no kind of machine does work.
 - d) all machines, in both senses of the word, need electricity or petrol to do work.

Are your answers the same as your partner's? If they are different, try to convince him or her that your answer is correct.

1.2 Reading and Labelling Diagrams

Now, look at the diagrams below, A, B, C. Read the text and label the diagrams Type 1, Type 2 or Type 3. Label the force, effort and fulcrum in each case.



Simple Machines

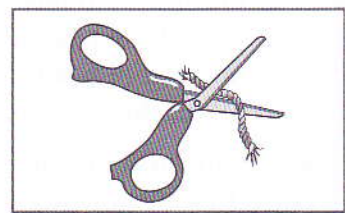
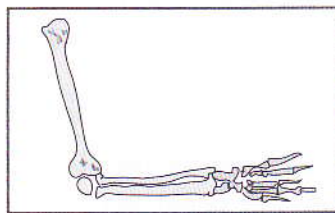
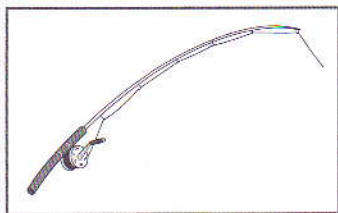
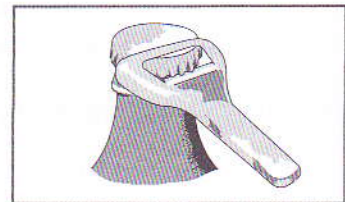
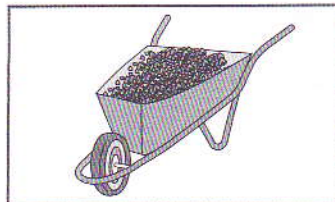
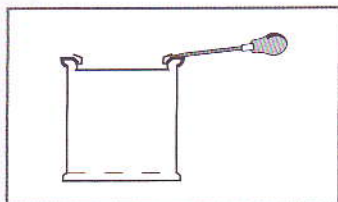
One kind of simple machine is the lever, which we can sub-divide into three types, one, two and three. An example of each is shown in the diagrams below.

In the Type 1 levers, the effort is applied downwards on one end of the lever, and the load is at the other end. The fulcrum, or fixed point of the lever, is between the load and the effort. The distance between the fulcrum and the effort is greater than the distance between the fulcrum and the load, and you can see intuitively that in this case, you have to move the lever further but it is easier to do so. In fact, the greater the difference between effort-to-fulcrum distance and load-to-fulcrum distance, the easier it will be to move the load.

In Type 2 levers, the fulcrum is at one end of the lever and the effort is at the other. The load, a downward force due possibly to gravity, is between the fulcrum and the effort. In the diagram, it is very close to the fulcrum, and the effort is a long way from it. As in a Type 1 lever, the nearer the load is to the fulcrum, the easier it will be to lift the load, for the same effort.

In Type 3 levers, the effort is between the fulcrum and the load, acting upwards against the force of gravity. You can see that this would not be a good lever for lifting very heavy weights, as the force of the effort you have to apply is greater than the force that the load exerts. Nevertheless, it is a common kind of lever because it often makes the work more convenient.

Now look at these pictures of things we use everyday. They are all different kinds of levers. In each case, where is the fulcrum, the effort and the load? Classify them according to whether they are Type 1, 2 or 3 levers. When you have thought about this alone for a while, share your ideas with a partner or in a small group.





L3 Vocabulary of Location and Direction

Reference List	
Location	Direction
between	between
at the end of	up / down
close to / a long way from	upwards / downwards
at the bottom / at the top	forwards / backwards
on the left of / on the right of	to / from
in the middle, centre of	towards / away from
over / under	over / under
near	across
in	into / out of
on	onto / off
at	through
from	along
next to	past
around / round	around / round
in front of / behind	
above / below	
opposite	

Here are groups of three sentences. In each group, the same word or expression, taken from the reference list above, is missing from each sentence. What is it? Try first without looking at the list, then use it to check.

- Everyone looked _____ at the sky.
You have to go _____ those stairs to the third floor.
Let's walk _____ that hill and see the view from the top.
- Mother sat _____ one end of the table and father sat _____ the other.
The force is applied _____ a different point.
What could go wrong _____ various stages of the process?
- The thief sat _____ the two policeman, so he couldn't escape.
We had to drive carefully _____ two posts.
How do you tell the difference _____ the two twins?
- I sat _____ João on the bus and we talked about the match.
The cinema is _____ the restaurant, so you can go straight from the film to dinner!
They live _____ a night club. They don't get much sleep!
- The thief climbed _____ the window and escaped.
The goats came _____ that hole in the fence and ate all my vegetables.
We drove _____ the middle of the town without stopping.

6. I was so hot I just jumped _____ the river with all my clothes on.
 You need to put money _____ the machine to get cigarettes!
 Please put everything _____ this box.
7. Please take your feet _____ the table!
 Be careful. Don't fall _____ your bike.
 He got _____ the horse and walked into the house.
8. How far is it _____ here to the airport?
 I took the money _____ him and gave it to her.
 Where do you come _____?
9. Who was the first person to fly _____ the Atlantic, from Europe to America?
 The bridge is broken. If we want to get to the other side, we'll have to swim
 _____ the river.
 He walked _____ the stage, from left to right, smiling and waving at the
 audience as he went.
10. I haven't got my key. We'll have to climb _____ the fence.
 The lamp hung _____ the table, and gave just enough light to read.
 See if you can jump _____ that wall!

1.4 Writing: Definitions

Do you remember the definition of a simple machine that was given in 1.1? Try and write it down, then check.

Definitions usually follow a fixed pattern:

(WORD) is a (CLASS) which / that (CHARACTERISTICS / FUNCTION)

In the following table, the definitions are in the wrong order. For example;

"A bottle opener is a device that is used for killing small rodents."

Match the word, class and characteristics. Then read them aloud, putting in the verb and *Which* or *That*, to make correct definitions:

Word	Class	Characteristics
a wheelbarrow	device	enables a force acting at one point to overcome another force acting at some other point.
a bottle opener	device	for killing small rodents.
a pair of scissors	device	used for making holes in the road for the purpose of maintenance, repairs etc.
a fishing rod	device	used for cutting paper and other material
an electric drill	device	has the load between the effort and the fulcrum
a chain saw	device	used for carrying heavy load
a pneumatic drill	device	used for catching fish without getting your feet wet
a type 2 lever	tool	used for making holes of a fixed diameter in wood, metal, etc.
a machine	tool	used for cutting down trees or for cutting up large pieces of wood.
a mousetrap	lever	used for removing the top from bottles



Can you identify the following objects from their incomplete definitions?

- This thing is a cylindrical object made of wax which is used for giving light when there is no electricity.
- This thing is a long rectangular object made of wood or plastic which is used for measuring the length of things.
- This thing is a heavy tool made of metal and wood which is used for knocking nails into wood.

Now in the same way, write incomplete definitions. Give the class word (object, device, tool, instrument) and the characteristics and function, but do not mention the name. When your definitions have been checked, take turns to read them aloud to the class, who will try to write down the name of the thing you have defined.

Task Cycle 2: Obsolescence

2.1 Reading: Dialogue

Look at this conversation and decide what Billy is going to say next.

- Billy: So, Dad, there's a big day coming up. Sixteenth of May. Have you remembered?
- Father: Oh, really? What's that, then?
- Billy: Someone's birthday, Dad. Someone you love lots, and want to give a big expensive present to, if only someone reminds you of the date.
- Father: Oh, really? Your birthday, is it?
- Billy: That's right.
- Father: Well, actually, I hadn't forgotten. I was talking to your mother about it yesterday, and she thought we could get you a video.
- Billy: A video? What do you mean?
- Father: Well, you know, a film or something that you'd like to see.
- Billy: Dad, in the first place, that's a really small present for someone's fifteenth birthday. And anyway, if you didn't already know, nobody buys videos any more. It's DVDs now.
- Father: Oh really? What's that then?
- Billy: It's digital, Dad. Everything is digital now.
- Father: What's wrong with videos, then?
- Billy: Dad, digital is the future. You get better picture quality. And you can play the disk a million times if you like, and it doesn't wear out. Not like those old tapes. DVD – digital video disk or something like that.
- Father: Disk? So, how do you watch it? Would it fit into the VCR?
- Billy: D-a-a-a-d! You need a DVD player. DVD is digital and our VCR is analogue, I keep telling you. You can't play a digital disk in an analogue player.
- Father: So, we'd have to buy one of these players?
- Billy: They're not expensive, Dad. They're much cheaper now than a few months ago. Now if you wanted to buy me a really nice birthday present...

Who do you feel more sorry for, Billy or his father? Why?

Arrange these adjectives in pairs of opposites, one to describe Billy, and one to describe his father:

- reactionary
- forward-looking
- up-to-date
- ignorant
- scientifically literate
- old-fashioned
- backward-looking
- progressive
- modern
- out-of-date

Do you think it's true that older people are more ignorant of the latest technological developments than the young?

2.2 Reading for the Main Ideas

Now read this article, published by the BBC in England on Monday, 22 November, 2004. Decide if it supports the point of view of Billy or his father.

Death of video recorder in sight

The death of the video cassette recorder appears to be in sight after the UK's largest electrical chain said it is to stop selling them.

Dixons will phase out VCRs due to the boom in DVD players, sales of which have grown seven-fold in five years. It ends a 26-year love affair with a gadget which changed viewing habits by allowing people to leave home without missing their favourite programmes.

Dixons expects to sell its remaining stock of VCRs by Christmas. The High Street retailer says demand for VCRs has fallen dramatically since the 1990s.

It aims to concentrate on their successor, the DVD, which has charmed consumers with its speed and superior quality. John Mewett, marketing director at Dixons, said: "We're saying good-bye to one of the most important products in the history of consumer technology. The video recorder has

been with us for a generation and many of us have grown up with the joys and the occasional frustrations of tape-based recording. We are now entering the digital age and the new DVD technology available represents a step change in picture quality and convenience."

The final nail in the coffin for VCRs is the low price of DVD players, which can now be bought for as little as £25. The cost of DVD recorders are also falling to a level within reach of many consumers.

The BBC's business reporter Hywel Jones said: "So far Dixons is the only major chain to abandon sales of VCRs. But video cassettes are likely to join record players and Rubik Cubes as objects of nostalgic affection."

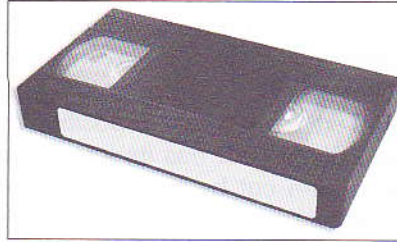
(Adapted from <http://news.bbc.co.uk/1/hi/business/4031223.stm>)



What points do both Billy and the article make? What would you do if you were Billy's father? Can you think of any technological changes that have happened in your lifetime?

Read the article again and find the answers to these questions:

1. Who or what is Dixons?
2. How many DVD players are being sold now, in comparison with five years ago?
3. When did VCRs start to become less popular?
4. For how long was the VCR popular?
5. What is the main point of this news item?



2.3 Reading: Information Transfer and Scanning

Read this text about VCRs and DVDs and make a table of similarities and differences between the kinds of players.

Digital is the Future

If you look very quickly, VCRs and DVD players seem to be similar. One is a bit bigger and fatter than the other, but they both sit in your living room, they both connect to the TV, and they both seem to have the same basic buttons on the front: on / off, play, pause, stop and eject. And they perform the same function: you turn the machine on, you put something in, you press play, and you sit and watch it. You press stop when it has finished, or pause if you want to freeze the picture. Both machines have a >> button if you want to go forwards quickly to a later point in the recording, and they also both have a << button, if you want to go back quickly to an earlier point in the recording.

In other words, the buttons perform more or less the same functions, and for most of us, that is enough. But the outer casing of the equipment conceals profound differences in the ways that the machine carries out these tasks.

The first of these, as Billy has already pointed out to his father, is that a VCR is analogue, while a DVD player is digital. This is the fundamental difference between them, and all the other differences arise from this. To understand analogue and digital better, we can compare it to a speedometer in a car. Some cars, especially older ones, have a dial or clock face with numbers arranged in a semi-circle around the top. A moving arrow points to the number corresponding to the current speed. Unless your speed is ABSOLUTELY CONSTANT, the arrow is always moving. A digital speedometer, on the other hand, shows the current speed in the form of numbers on a small screen. It shows your speed in a series of separate steps, even though they may be very close together. The analogue – digital difference is similar to walking up a slope, or walking up some steps.



So of course, it follows from this major difference that the two machines use different media to carry the information. As Billy explained to his father, the VCR uses a cassette containing 250 metres of oxide-coated Mylar tape that acts as the recording medium. On this tape, there is a sound track, which is one continuous linear strip along the top of the tape, and also a video signal. Because a video signal needs much more information than an audio signal, it cannot be recorded linearly, like the sound. Instead, it is recorded in separate fields recorded at an angle to the audio track. If you look inside a VCR, you will see that the head that reads the video signal is a rotating drum, which revolves 1800 times a minute, and which is tilted at an angle to the tape. In this way, it manages to read much more information. If it were stored linearly, the tape would need to be 80 kilometres long. The complex mechanism inside the VCR pulls the tape past the audio head, which, unlike the video head, is fixed, then past the revolving video head, then past the erase head, all the time being held in position by rollers.

Unlike the VCR, a DVD has its information stored in the form of little bumps and pits (hills and holes), which are cut by a laser into the surface. These represent the digital ones and zeros. These are so tiny as to be invisible to the naked eye, but there is so much information on a double sided, double layer DVD that if it could be stretched out in a straight line, it would be nearly 50 kilometres long. They are read by a laser, rather than a recording head, and are converted back into an analogue signal, to be played through your speakers. More recent kinds of DVD have information burnt into both sides of the disk, and even in two layers on each side, which can hold 17 GB of information.

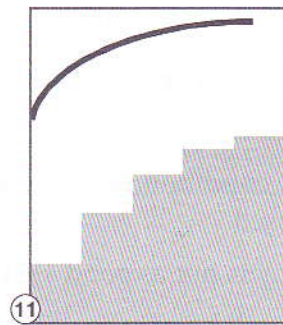
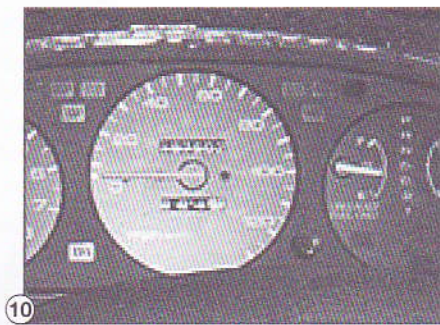
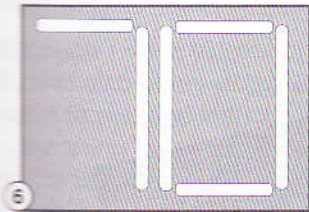
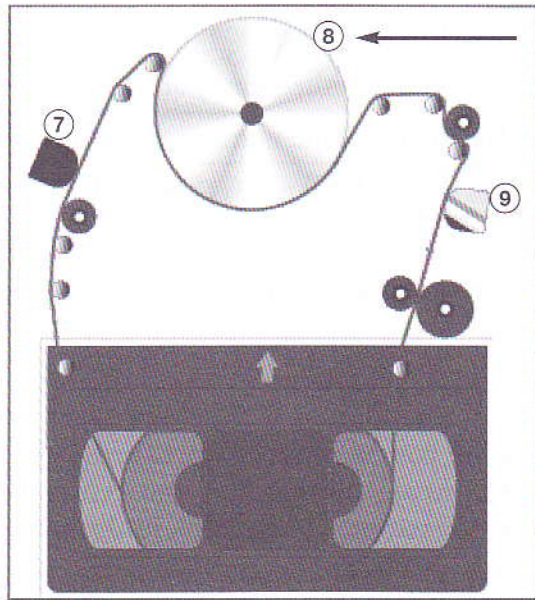
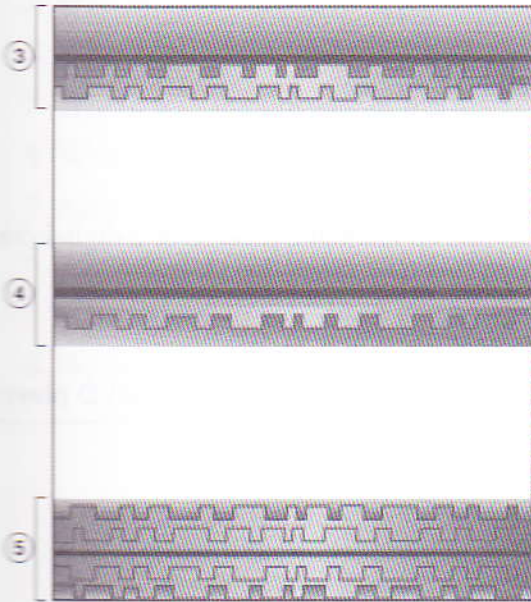
The digital format has several advantages over the VCR. The most important from our point of view as users of the equipment, is that the plastic-coated disks, unlike the fragile tape, do not deteriorate with use, and are less likely to be damaged by careless use. Whereas a tape is a little less sharp each time you watch it, a digital disk always maintains its quality. This is also true for recording. If you copy a tape, the copy is always inferior to the original, and if you copy the copy, it is very poor in terms of quality. Digital copying, however, maintains the same quality over each copying generation.

Although millions of people around the world still use VCRs, their days are probably numbered as the digital revolution marches on. As prices of DVD players and recorders come down, and as people realize how much better the quality of digital information is, more manufacturers will stop making VCRs, and in a few years from now, they will be museum pieces.

2.4 Diagrams

Complex ideas are often better expressed in the form of a picture or diagram, rather than trying to explain it in words. Look at the following pictures and diagrams, and use the text to label these things:

- A. A digital speedometer
- B. An analogue speedometer
- C. A diagrammatic representation of the difference between analogue and digital information
- D. the audio track on a piece of recording tape
- E. the video signal on a piece of recording tape
- F. a cross-section of a single-sided single-layer DVD.
- G. a cross-section of a single-sided double-layer DVD
- H. a cross-section of a double-sided double-layer DVD
- I. the audio head of a VCR
- J. the video head of a VCR
- K. the erase head of a VCR



Adapted from www.howstuffworks.com/vcr.htm and www.electronics.howstuffworks.com/dvd.htm

2.5 Reading: Scanning Quickly for Specific Information

Scan the text in 2.3 again to find this information:

1. Which needs more space on a tape, the audio or video signal?
2. What mechanism reads the information from a DVD?
3. Does the audio head in a VCR rotate?
4. What substance covers the tape used in a VCR?
5. What is the function of the << button?
6. How is the speed displayed on a digital speedometer?
7. Does the text say that walking up steps is like an analogue process or a digital one?
8. How fast does the rotating head in a VCR revolve?
9. What are the names of the three heads described in a VCR?
10. Are the same number of control buttons described on a VCR and a DVD player?
11. Which kind of DVD holds 17GB of information?
12. What kind of speedometer do older cars have?
13. How long would a tape be if the video signal was recorded linearly?

Can you remember an expression in the text which means the same as the following things? Try and remember, then scan the text to find the original expressions. (They come in the same order as below.)

1. they do the same job
2. to stop a video tape with a picture still on the screen
3. how the machine does these jobs
4. your speed at this moment
5. not changing at all
6. you cannot see it without the help of a microscope
7. digital is better than a VCR is various ways
8. their condition does not get worse when they are used
9. a copy is not as good as the original
10. they will be objects of curiosity, not in common use





Task Cycle 3: The Impact of Technology

3.1 Reading

Look at these questions and then read the following text to look for the answers.

1. Who is Tony?
2. What kind of document is this?
3. Where was the document printed?
4. Who wrote it and why?
5. About how old is the writer? How do you know?
6. What style is the letter written in?
7. What effect do you think the letter will have on the reader?
8. Do you think the writer knows the reader personally?

To:

CC:

Subject:

Dear Tony,

Although I went to school in "pre-computer days", I now use computers every day in my work, and also in my personal life, and have got to the point now where I can't imagine how we used to manage without them. Believe it or not, I used to use a pen for all my work. Anyway, the thing is, although I am a heavy user, I really don't know anything about how they work. I'm like a professional truck driver that doesn't know how to put diesel in the tank. To make matters worse, I have no idea what to do if things go wrong. I'm absolutely helpless. I can't tell the difference between a memory chip and a hard disk. I wouldn't recognize a graphics card if one of them jumped up and bit me on the nose. And when people start talking about gigabytes and RAM, I go quietly to sleep in my chair until they've finished. I buy your magazine regularly, and I find the product reviews and the program tutorials very useful. However, I think it would be a great idea if you could include in a future edition a simple guide on what to do when things go wrong, for people like me who are terrified of opening the cover of a computer, so that we don't have to go running to our colleagues or neighbours (or, even worse, our children!) for help. Meanwhile, congratulations on a great magazine, keep up the good work.

Sam

ssmith@bluebird.net

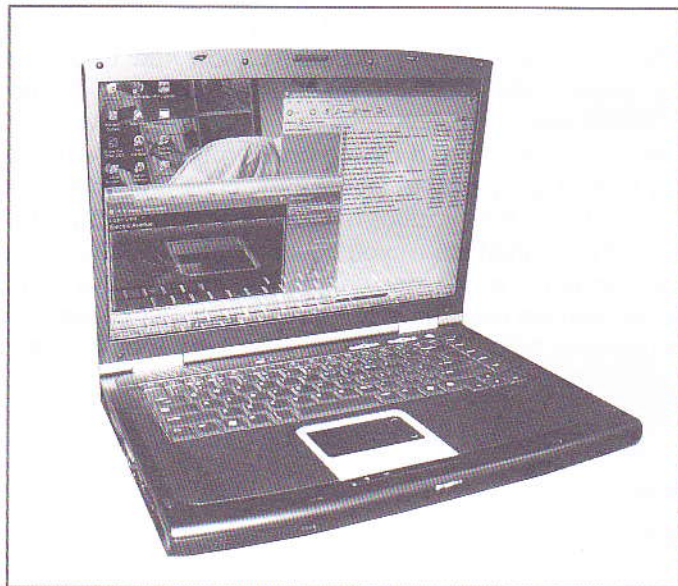
Read it again more slowly now, and the answer bellow, and discuss these questions:

1. Do you think this person is afraid of technology or is he / she comfortable with it?
2. What does the writer mean by "I'm a heavy user"?
3. Why does the writer mention truck drivers?
4. What does the writer mean by "if one of them jumped up and bit me on the nose"? What effect does the writer want to have on the reader here?
5. Are we supposed to believe literally everything that the writer says? Can you find an example of something that we are maybe not supposed to take literally?
6. Why does the writer say "or even worse, our children"?
7. When the writer says "I used to use a pen", is he or she talking about the past or the present?

Here is the answer to the above document.

An excellent idea, Sam, and as it happens, yours is only one of many similar emails we've had, so next month's edition will have just the thing for you. Keep buying the mag!

8. Do you think the recipient of the document sent the writer a letter?
9. Why in the answer does the writer call the other person by his or her first name?
10. What promise does the writer give here?
11. What does the writer mean by "just the thing for you"?
12. The writer of the first document was asking for "help and advice"? If you were Tony, would you be able to give the writer any help or advice? Pool all the resources in the class, and try and predict what help and advice might appear in "next month's edition"?





3.2 Language Focus: Pronunciation - [ʃ] and [tʃ]

This sentence is from Sam's email to Tony in 3.1.

"I can't tell the difference between a memory chip and a hard disk."

Read it aloud. How do you pronounce the word "chip"?

Listen to various classmates saying the word. Do they all pronounce it the same way?

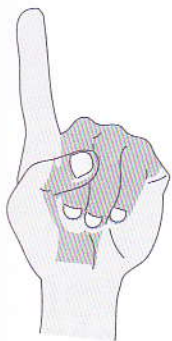
Now read these two words aloud, and listen to your classmates reading them:

ship	chip
------	------

Can you hear a difference in the pronunciation? To pronounce the CH sound correctly in, for example, "chip", you have to imagine there is a letter T in front of it – [tʃ] – "tchip"

Recognition:

Your teacher will read words at random from this table. If you think the word is from column 1, hold up one finger in the air. If you think it is from column 2, hold up two fingers.



Ship!

One finger	Two fingers
ship	chip
sheep	cheap
share	chair
shatter	chatter
sheet	cheat
shoe	chew
sherry	cherry
shin	chin
mash	match
wish	witch
wash	watch
dish	ditch
shop	chop



Chip!

Production:

Now try the same thing in pairs, and then choose various classmates to come to the front of the class.

3.3 Discussion - "Future Shock"

Before you start reading the text, see if you can guess what the term "future shock" might mean. Discuss it for a few minutes in small groups or pairs.

Sam, in the email in 3.1, talked about a problem which is common these days: how to deal with the increasing amount of technology in our lives. We must all feel the impact of technology, sometimes in good, beneficial ways, and sometimes in bad ways. Sam felt frustration because he or she was not in control of something which was very important in his or her life – computer technology. In 1970 an American named Alvin Toffler wrote a book called Future Shock in which he described the feeling of disorientation and confusion that increasing numbers of people feel as the advances in technology seems to increase faster than people can absorb them.

The text in 2.2 and 2.3 talked about how VCRs have been a useful tool "for a generation". That's an important phrase, because it means that, maybe for the first time, things are now being invented and are becoming obsolete ALL WITHIN THE TIME SPAN OF A SINGLE LIFETIME. We have to learn new technology, and then unlearn it and learn new things, over and over again. One of the things that Toffler said was: "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn." How far do you agree with this statement?

3.8 Debate

The motion to be debated is: "**Computers do more harm than good**".

Decide who is in favour of the motion and who is against. It is more interesting if you decide this randomly, so that some people have to argue in favour of something that they don't really believe! It often helps if you discuss the ideas in small groups before the debate begins.

As in previous debates, choose a chairman, who will control the debate, and choose two principal speakers for each side of the motion.

The procedure for the debate is:

1. Principal speaker #1 in favour of the motion
2. Principal speaker #1 against the motion
3. Principal speaker #2 in favour of the motion
4. Principal speaker #2 against the motion
5. The chairman nominates people from "the floor" to make brief speeches.
6. When everybody has had a chance to speak, you vote for or against the motion. The chairman counts the votes, and announces whether the motion was "carried" or "defeated".

You could write a brief report of the debate, summarizing the points for and against. This could be either individually, or a communal effort, with a chosen person writing on the board.



UNIT 8

Energy



PRE-FOCUS

Think about a typical day in your life. What do you do that needs energy? Write down the things that you do and where you think the energy you use for each activity comes from.

Example:

You come to school on the school bus – energy comes from petrol

When you have finished your list, compare it with a partner's.

Task Cycle 1: Forms of Energy**1.1 Reading for Detail**

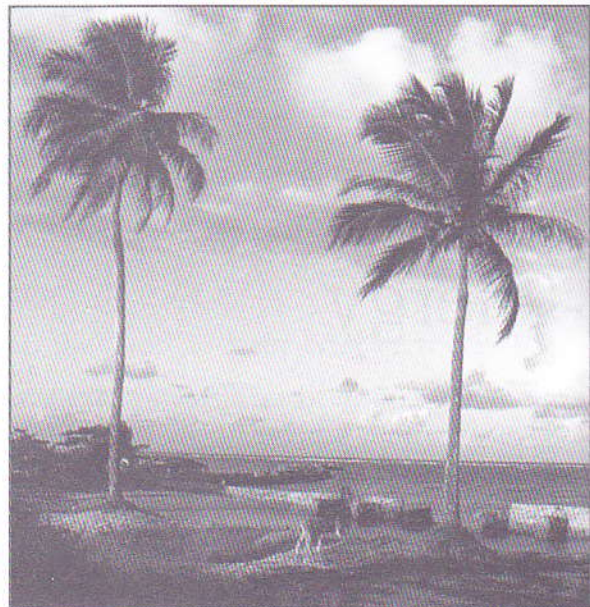
Read the following statements and decide if they are True (T) or False (F). Then read the text to check your answers.

1. Energy is only essential for some forms of life.
2. There are many processes for which we need energy, such as growth, and heat production.
3. Machines cannot work without energy.
4. As the population today is decreasing, we will need to find new energy sources in the future.
5. We have plenty of energy supplies so we can use them as much as we like.

Energy

All living things need energy. Energy makes things grow, keeps us warm and sustains life. Without energy, all living things would die. We can invent machines to do our work and help us explore the universe but they all need energy to drive them. Without energy supplies we could do very little because all our machines would stop working.

As more and more people live on the Earth their energy needs increase and the search for new energy sources becomes more urgent. So one of the most important tasks facing engineers and scientists today is how to supply people with enough energy in the future. Energy is all around us, in the food we eat, in the wind, the waves and in fossil fuels such as coal and oil. We are only just beginning to learn how to use these natural resources efficiently and sensibly.





1.2 Language Focus: Vocabulary and Verb Tenses

Choose verbs from the box to best complete the text. Put the verbs in the correct form, either Present Simple Active or Passive. Check you know the meanings of the verbs with a dictionary or your teacher.

combine convert release provide vary obtain need

Energy and our Bodies

Food _____^① us with the energy that we need to do our work and to keep warm. As we breathe we absorb oxygen through our lungs. When this oxygen _____^② with glucose molecules in a process called oxidation, energy _____^③. This is the process by which we _____^④ energy from carbohydrates, fats and proteins. Any surplus food _____^⑤ into extra fat which is stored around the body. When extra energy _____^⑥, such as when we need to run fast, our body uses some of this 'stored' fat and we lose 'weight'. The amount of energy we need _____^⑦ greatly according to what we are doing (see Table 1), although we also lose energy as heat at all times.

Table 1

Activity of a 70 kg person	Rate of working in joules per second
sleeping	80
sitting reading	120
using the computer	160
walking slowly	250
running, swimming or hard physical work	500 to 800
walking upstairs	1300

1.3 Language Focus: Comparisons

Now, look at the table above and the examples below to compare the energy involved in the different activities.

Examples:

- We use twice as much energy when we are running as when we are walking slowly.
- We use slightly more energy when we are using the computer than when we are sitting reading.
- We use the most energy when we are walking upstairs.

Write similar sentences from the phrases given. Use the following comparatives: *slightly more*, *a lot more*, *a lot less*, *the least*, *the most*, *twice as much*, *half as much*

1. sleeping/using the computer
2. sitting reading/swimming
3. sleeping
4. hard physical work/walking slowly
5. walking upstairs/sleeping
6. using the computer/sitting reading

1.4 Reading and Discussion

Read the following text and then with a partner prepare answers to the questions that follow.

The Conservation of Energy

One of the most important and firmly established laws of physics is that energy is conserved, that is, the total of energy in a closed system will always remain constant. The Earth can be considered a closed system, so the total energy is always the same. Even though we use the phrases "run out of" and "use up" when we talk about energy, we will in fact never "run out of" or "use up" energy.

The problem we actually have is to do with the storage of energy. Our problem isn't that the sun isn't providing enough energy but that we can't store it for future use. How do we store energy? A store of energy is called a fuel. Food in all its variety is the body's store of chemical energy or the body's fuel. A high level of chemical energy is stored in the fossil fuels coal, natural gas and oil, making them the three most widely used and important energy sources in the world. Unfortunately, when these fuels are burned in chemical or nuclear reactions to release the energy, the original fuel mass is used up and cannot be recreated without spending more energy than the amount that could be obtained (defeating the purpose of an energy source altogether!). It is for this reason that we must come up with viable, renewable sources of energy before our non-renewable supplies run out.

Laws of physics state that energy can be changed from one form to another (or into matter – the reason why there's energy in fossil fuels). There are various forms of energy: kinetic energy (energy of motion), potential energy, mechanical energy, nuclear energy, etc., but we cannot directly use these forms of energy to turn on our TV or to cook food in the microwave. That's where electricity comes in. Since electricity is the primary form of energy used by most of the world's population, power plants must exist to convert heat from burning fossil fuels, or kinetic energy from falling water, into the energy that flows through the wires in our homes.

So, as you can see, physics is indeed important in understanding our energy use.

(adapted from www.library.thinkquest.org)

1. Explain the meaning of the statement "energy is conserved".
2. What is the problem with using fossil fuels for energy?
3. Why can't we use these fuels directly to power our TVs or microwaves?
4. How is electricity produced?

Now, discuss your answers with another pair and see if you agree with each other.

1.5 Language Focus: Phrasal Verbs

Phrasal verbs are very common in English. They are made from a common verb such as *give*, *go* or *get* + a word such as *up*, *off* or *on*. The two words together have a specific meaning.

Examples:

- My father **gave up** smoking last year. (My father stopped smoking last year.)
- The car bomb **went off** outside the embassy. (The car bomb exploded outside the embassy.)
- I **get on** very well with my sister. (I have a good relationship with my sister.)

Find the following phrasal verbs in the text in 1.4 and use the context to match them with their meanings.

1. run out of	a) be related to
2. use up	b) connect
3. do with	c) find ideas
4. come up with	d) become relevant
5. turn on	e) come to an end
6. come in	f) finish

Now use the phrasal verbs in the correct verb tense to complete the sentences.

1. Have you read many books to _____ energy?
2. Our teacher asked us to _____ some ideas for the end-of-term party.
3. It's very dark in here. Could you _____ the light, please.
4. Sorry I was late for class but my car _____ petrol.
5. I need someone to lend me some money, and that's where you _____.
6. My mother was very cross after I _____ all her favourite perfume.

1.6 Reading and Information Transfer

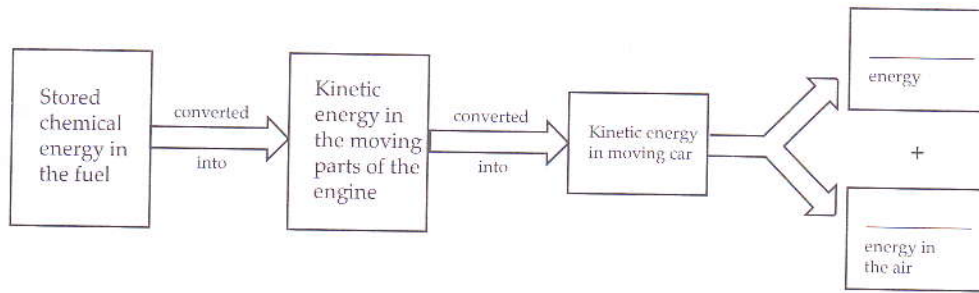
Read the following explanations and then label the diagrams.

We have already seen that the total amount of energy in existence does not change because energy cannot be created or destroyed. We may talk about needing energy and using or consuming it, but in fact we can only convert energy from one form to another. Let's look at some examples.

A car uses stored chemical energy in the form of petrol which it burns to drive



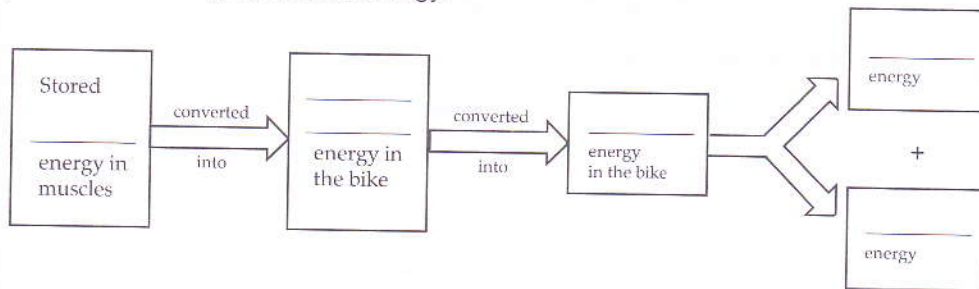
its engine and make it move. The chemical energy is converted to heat energy which is then converted by the motor to kinetic energy in the moving parts. Both heat and sound energy are given off during the conversion. The car battery also stores energy in a chemical form and uses a chemical reaction to supply electrical energy to various devices in the car. All batteries store chemical energy.



Another type of energy, potential energy, is stored by an object when it is in a particular position or condition. Objects which are able to fall down have stored energy caused by gravity. This form of potential energy is therefore called gravitational potential energy and depends on the raised position of an object above the ground. So gravitational potential energy is stored in the water at the top of a waterfall or in a high-level reservoir in a hydroelectric plant.



Similarly, a cyclist has gravitational potential energy when he reaches the top of a hill. He has used a lot of stored chemical energy to get to the top of the hill. At the top of the hill the gravitational potential energy he has gained will drive him down the hill with increasing kinetic energy. Any object that is moving has kinetic energy.



1.7 Pronunciation

Say the following words to yourself and underline where you think the stress is.

Example: kinetic energy

- | | | |
|-------------------|----------------------|-------------|
| potential energy | gravitational energy | combustion |
| nuclear energy | reservoir | electricity |
| chemical energy | conservation | machine |
| mechanical energy | | |

Now listen to your teacher saying the words and check your pronunciation. Practise with a partner.

Do you understand the meanings of all the terms? Check the meanings with a partner, a dictionary or your teacher.



Task Cycle 2: Energy and the Economy

2.1 Reading and Note Taking

Read the text below and make notes on the different energy sources. Look back at the notes you made in Units 2 and 6 to help you with the headings and subheadings.

Some Southern African Energy Solutions

(19 August 2003)

We need to find ways of providing adequate and affordable energy for all, while promoting environmental sustainability. Many of Southern Africa's medium- and long-term energy needs could be dealt with through regional cooperation.

There are several technologies that could improve the sustainability of the regional electricity industry. In addition to reducing pollution from coal-fired power stations, hydroelectric and solar power, natural gas, wind, tide and wave power may all help the region address its energy needs with minimum impact on the environment.

The first two finite, non-renewable energy sources available in the region are coal and oil. Coal is used in many coal-fired power stations. Burning coal to produce electricity however causes serious environmental problems as pollution from power stations contributes to global warming and acid rain. We could start by reducing pollution from these power stations. This pollution can be reduced by using equipment which removes oxides of sulphur and nitrogen from the gases released when coal is burnt. This could result in electricity being more expensive, but this should be weighed against the benefits to the environment. Coal and oil stocks are finite and sooner or later we shall have to rely on another source of energy.

A third energy source is natural gas. Although it is a non-renewable resource, it has great potential as a future energy source for Southern Africa. There are large natural gas reserves in Namibia and Mozambique, which could export the gas to neighbouring countries. Natural gas produces less pollution than other fossil fuels. In fact, latest natural-gas-burning turbines can produce electricity 50% more efficiently than those burning coal. Because of its advantages over coal and oil, some analysts see natural gas as the best fuel for the transition to energy efficiency and renewable energy.

Hydroelectricity is an alternative energy source which is renewable and does not pollute. However, it is expensive, and requires the construction of large dams which have significant social and environmental costs. In addition, this option requires regional cooperation and political stability.

Solar energy can be used to produce heat. In Israel more than two-thirds of houses are fitted with solar water heaters. Southern Africa experiences more sunshine than most places and there is great potential for widespread use of solar water heaters, particularly in mass, low-income housing projects. However, the initial investment for solar panels is expensive as large areas of panels are needed to collect useful amounts of energy. Solar energy could be particularly useful in remote areas far from the electricity grid, such as farms, rural clinics, and water pumping stations.

Wind energy is freely available and poses less of a threat to the environment than fossil and nuclear energy sources. Wind energy can provide electricity for communities not linked to the electricity grid.

There is much debate among energy planners in Southern Africa as to whether nuclear energy should play a role in the area's future. Using current technology it is an expensive option, with unresolved environmental problems such as the disposal and storage of waste products.

(adapted from www.picknpay.co.za)

2.2 Vocabulary: Sources of Energy

Can you find eight sources of energy hidden in the letters below? The words are hidden across, up and down, diagonally and backwards.

N	G	R	E	N	E	B	Q	T	I	N	L	B	L	U	B
V	A	F	E	M	U	G	C	S	X	J	A	I	H	A	T
I	G	T	T	T	T	A	O	V	E	L	M	O	C	E	R
Q	U	I	U	T	S	L	E	B	Z	I	R	M	V	L	U
P	W	N	R	R	A	O	S	Z	X	O	E	A	U	M	B
V	E	A	H	R	A	E	L	C	U	N	H	S	E	N	T
B	C	N	V	R	Q	L	A	A	N	R	T	S	J	L	O
N	Z	H	A	E	R	N	G	S	O	A	O	K	T	E	R
X	T	Y	Q	N	O	E	I	A	R	C	E	B	I	C	W
S	V	I	D	N	I	W	K	E	S	R	G	S	N	O	C

(from www.sec.org.za)

2.3 Language Focus: Numbers

Cover the written form of the numbers in the right hand column and practise saying the numbers.

- 37 thirty-seven
- 500 five hundred
(remember no 's' on hundred, thousand, million)
- 246 two hundred and forty-six
(remember 'and' only before the tens)
- 3,000 three thousand
(remember the comma (,) is used to show thousands)
- 23,718 twenty-three thousand seven hundred and eighteen
- 489,324 four hundred and eighty-nine thousand three hundred and twenty-four
- 2,103,024 two million one hundred and three thousand and twenty-four
- 23.67 twenty-three point six seven
(remember the (.) is a decimal point and after the decimal point you say the numbers individually)
- 16.098 sixteen point oh (or zero) nine eight
- 32 °C thirty-two degrees Celsius

16%	sixteen per cent
1993 (year)	nineteen ninety-three
2000	two thousand
2005	two thousand and five
2/2/2003	the second of February two thousand and three
23/5/98	the twenty-third of May nineteen ninety-eight

How do you say the following numbers? Practise with a partner. Check with your teacher.

- | | |
|--------------|----------------|
| 1. 29 | 6. 16% |
| 2. 1,385 | 7. 4 °C |
| 3. 25,697 | 8. 1921 (year) |
| 4. 685,413 | 9. 3/1/2004 |
| 5. 1,540,685 | 10. 70.372 |

Now work in pairs. One of you is Student A and the other is Student B.

Student A

Say these numbers to your partner. He/she will write them down.

- | | |
|----------------|--------------|
| 1. 98 | 6. 45 °C |
| 2. 80% | 7. 18.359 |
| 3. 17,622 | 8. 22/8/2001 |
| 4. 1865 (year) | 9. 367 |
| 5. 10,415,391 | 10. 5.15 |

Now you write the numbers your partner says. Check when you finish.

Student B

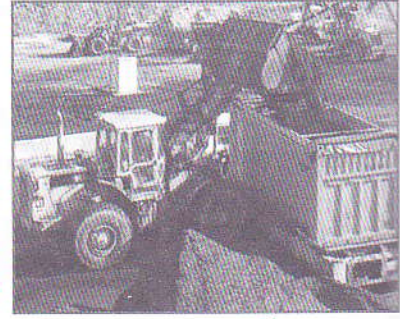
Write the numbers your partner says. Check when you finish.

Now say these numbers to your partner. He/she will write them down.

- | | |
|----------------|---------------|
| 1. 45 | 6. 6.207 |
| 2. 30/11/98 | 7. 818 |
| 3. 1492 (year) | 8. 19 °C |
| 4. 85,572 | 9. 25,119,928 |
| 5. 13% | 10. 3,333 |

2.4 Listening and Speaking

Listen to your teacher giving some information on the current situation of Natural Gas in several different Southern African countries. Fill in the numbers that are missing in the table.



NATURAL GAS IN SADC COUNTRIES

Natural Gas (billion cubic feet)

Countries	Production, 2003	Consumption, 2003	Reserves 1/1/2005
Angola			
Democratic Republic of Congo	0.00	0.00	
Mozambique			
Namibia	0.00	0.00	
South Africa			
Tanzania	0.00	0.00	
Zimbabwe	0.00	0.00	0.00

(adapted from www.eic.doc.gov)

2.5 Language focus: Comparatives and Superlatives

Complete the text using comparatives and superlatives.

There are at present three main countries producing natural gas in Southern Africa. South Africa produces _____, with a production of 82.99 billion cubic feet in 2003. Angola produces _____ with a 2003 production of 25.43 billion cubic feet while Mozambique produced _____ with a figure of 2.12 billion cubic feet. All three countries consumed _____ they produced so there were no exports in that year.

As far as reserves are concerned, there are two more countries, Democratic Republic of Congo and Namibia, which both have reserves in addition to the other three countries. Mozambique has _____ reserves with a total of 4,500 billion cubic feet on 1/1/2005. Namibia is next with about _____ Mozambique, 2,200 billion cubic feet. Angola has 1,620 billion cubic feet which is about _____ Tanzania with 800 billion cubic feet. Democratic Republic of Congo has _____ with only 35 billion cubic feet whereas South Africa has _____ reserves with only 1 billion cubic feet.

2.6 Presentation

The class is divided into two groups, Students A and Students B.

When you have finished your text, you will work with a student who has prepared a different text.

Student A

Use the structure of the completed text in 2.5 and the figures in the table below to write a paragraph about "Coal in Southern Africa".

COAL IN SADC COUNTRIES

Coal (million short tons)

Countries	Production, 2003	Consumption, 2003	Reserves 1/1/2005
Angola	0.00	0.00	0.00
Democratic Republic of Congo	0.11	0.26	97.00
Mozambique	0.05	0.01	234.00
Namibia	0.00	0.00	0.00
South Africa	263.78	187.76	15,738.00
Tanzania	0.09	0.09	220.00
Zimbabwe	3.74	3.53	553.00

Read your text about "Coal in Southern Africa" to Student B, who will complete the missing information in his/her table.

Now, Student B is going to read his/her text on "Petroleum in Southern Africa". Listen and complete the missing information in your table.

PETROLEUM IN SADC COUNTRIES

Petroleum (thousand barrels a day)

Countries	Production, 2004	Consumption, 2004	Reserves 1/1/2005
Angola			
Democratic Republic of Congo			
Mozambique	0.00		0.00
Namibia			
South Africa			
Tanzania	0.00		0.00
Zimbabwe	0.00		0.00

Student B

Use the structure of the text in 2.5 and the figures in the table below to write a paragraph about 'Petroleum in Southern Africa'.

PETROLEUM IN SADC COUNTRIES

Petroleum (thousand barrels a day)

Countries	Production, 2004	Consumption, 2004	Reserves 1/1/2005
Angola	1,051.2	57.00	5,412.00
Democratic Republic of Congo	21.1	7.0	187.0
Mozambique	0.00	11.00	0.00
Namibia	0.00	23.0	0.00
South Africa	250.8	446.00	15.7
Tanzania	0.00	22.0	0.00
Zimbabwe	0.00	18.0	0.00

Now, Student A is going to read his/her text on 'Coal in Southern Africa'. Listen and complete the missing information in your table.

COAL IN SADC COUNTRIES

Coal (million short tons)

Countries	Production, 2003	Consumption, 2003	Reserves 1/1/2005
Angola	0.00	0.00	0.00
Democratic Republic of Congo	0.11	0.26	97.00
Mozambique			
Namibia	0.00	0.00	0.00
South Africa			
Tanzania			
Zimbabwe			

Now, read your text on "Petroleum in Southern Africa" to Student A, who will complete the missing information in his / her table.

2.7 Reading and Note Taking

With a partner read the following article and make a table like the one below listing the disadvantages of using firewood and the advantages, both to the environment and to the local villagers, of using solar box cookers. You will make notes and then compare your notes with another student. Include the methods of use in your notes.

Drawback of Burning Wood	Benefits of Solar Box Cookers	Methods
<ul style="list-style-type: none"> - Shortage of firewood - Deforestation - - - - 		

Solar Box Cookers

Half the inhabitants of earth cook over wood fires. Nearly half the world's wood supply is used as fuel. But there's not enough of it to go round – more than 2 billion people now face shortages of firewood. Forests in the developing countries are shrinking by more than 15 million hectares a year. The critical forest-to-people ratio has never been lower world wide. It is now less than half what it was in 1960.

The obvious answers are to plant more trees, and to stop burning the trees that are left. But those in need do not have alternative fuels and forestation schemes take years to produce new trees. Meanwhile, deforestation leads to soil erosion, floods and climate change, severe environmental degradation, and increasing poverty and hunger.

It's a complex problem, like all environmental problems. But there's one simple answer, solar box cookers. These can save millions of trees, provide clean, safe drinking water, reduce smoke, and at the same time cost very little.

Solar box cookers are easy to make. One design is easy enough for a 10-year-old to build. They are made by fitting two boxes of cardboard cartons one inside the other with a layer of newspaper or other insulating material between them. A dark bottom tray is fitted inside the inner box. Then a heat-resistant, plastic lid is put over the top of the boxes. This opens at an angle to act as a reflector. The lid and inner box are covered with shiny aluminium foil which reflects the sunlight onto a dark-coloured cooking pot.

Solar box cookers produce no smoke and no pollution. Women and children are most exposed to high levels of harmful smoke and suffer the most serious health damage from diseases such as lung cancer, acute respiratory infections, ear and eye problems, breathlessness, chest pains, headaches and giddiness.

Solar box cookers can pasteurize drinking water: heating water to 65 °C for six minutes destroys disease organisms, and this temperature is easily achieved with solar box cookers. Firewood doesn't do this so well.

Solar box cookers would also save millions of women many hours (or days) wasted searching for firewood, giving them the time to look after their children, grow more food, and for education – which is the key to reducing population growth. They cannot replace firewood use, but they can supplement it.

(adapted from <http://journeytoforever.org>)

2.8 Role Play

Situation

Some energy consultants have arrived in a village to try to convince the women to change their way of life and to use solar cookers instead of wood for cooking. You are going to role play the discussion that takes place between them.

Half of the students are energy consultants. The other half are village women. Each student has a role play card which gives some ideas for the arguments he/she will present in the discussion.



ROLE PLAY CARDS

Energy consultants

Drawbacks of burning wood

- environmental damage – global warming, greenhouse effect
- health concerns – smoke, carrying heavy loads
- time – spending longer and longer collecting wood
- education – girls needed to help mothers
- water – boiling to remove impurities

Don't forget to use the language of advice and suggestion that we have practised.

Village women

- traditional lifestyle – types of food
- fear of innovation
- walking – good form of exercise out in fresh air
- time for chatting away from house
- girls learn by example

Don't forget to use the language for accepting and rejecting advice or suggestions that we have practised.

1. Work with students with the same role play card as you. Prepare what you are going to say in the discussion. Talk about the ideas on the cards and add more of your own. Get as many ideas either *for* the project (the energy consultants) or *against* it (the village women).
2. Hold a general discussion with a chairman.
3. Now write a report of the discussion and the outcome.

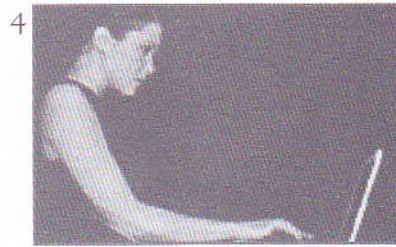
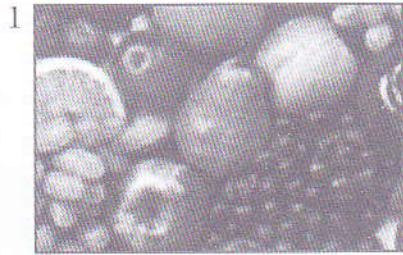


Health



PRE-FOCUS

In small groups look at the pictures and discuss what aspects of health they represent. Make a list of any other aspects you think should be discussed in a unit on Health.



Task Cycle 1: Health and the Individual

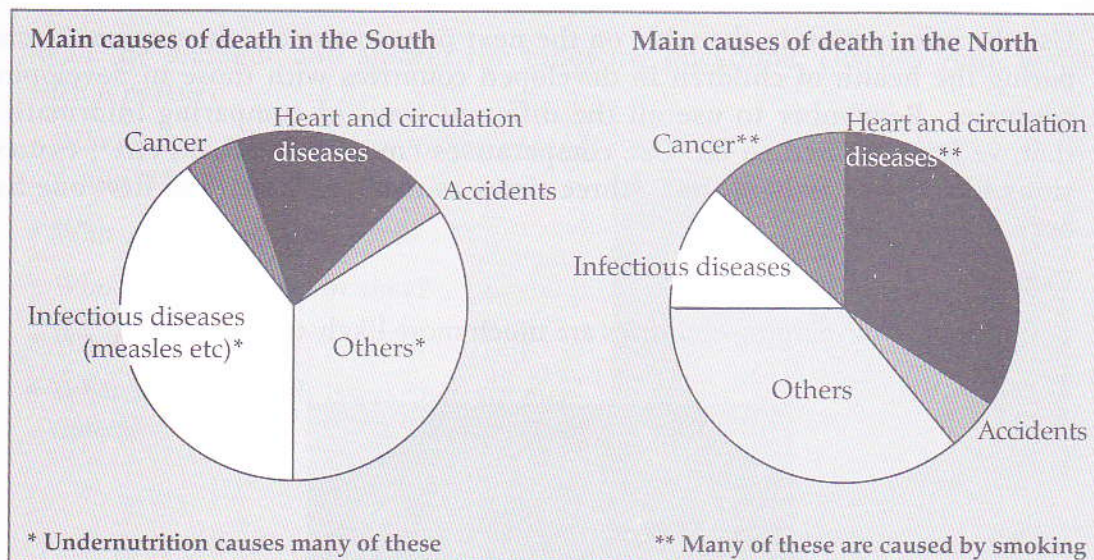
1.1 Note-taking From Texts and Tables

Read the information below on health in developed and developing countries and make notes on the topics that follow. Use both the text and the pie charts.

1. How can we measure the health of a country?
2. Find definitions in the text for the following terms:
 - Life expectancy
 - Infant mortality

Comparing the Causes of Death in the North and the South

It is difficult to measure the health of a population, but one can measure the number of deaths, the causes of deaths and the age at which it occurs. This gives us an idea of the health of the country. Life expectancy (the average age people live to) is over 70 years in the North, but under 50 years in some parts of the South. For every 1,000 babies born in Zambia, 135 will die in their first year. In Britain, by comparison, the infant mortality rate (the number of babies dying) is only 13 per 1,000. In the North, cancer kills one in five people. Some of this cancer is caused by smoking, food additives, pollution and radiation. One in three people will die from heart disease, caused by bad diet, lack of exercise, stress and smoking. The major causes of death in the South are not, as you might expect, tropical diseases such as malaria or cholera, but the same curable and preventable diseases that killed most people in Europe until about 150 years ago: tuberculosis (TB), measles, pneumonia and diarrhoea. These are caused by poverty and malnutrition rather than lack of doctors. Most of the disability that affects people in the South can be prevented by better nutrition, immunization against disease, and safer living and working conditions.



(Taken from *World Health* by Janie Hampton)

3. Complete the notes on the main causes of death in different parts of the world. Put the most common cause first.

DEVELOPED COUNTRIES

- 1. Heart disease caused by
 - a) bad diet
 - b) _____
 - c) _____
 - d) _____

- 2. _____ caused by
 - a) _____
 - b) _____
 - c) _____
 - d) _____

- 3. _____
- 4. _____
- 5. Others

DEVELOPING COUNTRIES

- 1. _____ e.g.
 - i) _____
 - ii) _____
 - iii) _____
 - iv) _____caused by
 - a) _____
 - b) _____

- 2. _____
- 3. _____
- 4. _____
- 5. Others

1.2 Language Focus: Comparison

Use the information in the table on the next page to write eight sentences comparing the health of children in developed countries with those in developing countries. Remember to use all the different ways of comparing information that we have studied so far. Use comparatives "more colds than, etc.", expressions like "twice as likely as", "three times as many as", etc. The first one has been done for you.

Example:

- 1. Children in developing countries are much more likely to get colds.
- 2. ...



Comparing the Health of Children

One way we can compare the health of children in different parts of the world is to take two groups and look at them in detail. For example, we could compare the average figures for children in a developed country in the North with those of a similar age group in Central Africa. If we took ten children in their second year of life in these two places we would find (on average) that they had had between them:

Children in developed country	Children in developing country
10 colds	17 colds
1 pneumonia	4 pneumonia
2 measles	4 measles
2 diarrhoea	20 diarrhoea
1 skin infection	16 skin infections
0 malaria	26 malaria
1 born weighing less than 2 kg (perhaps because the mother smoked during pregnancy)	2 born underweight because the mother was malnourished
approx £200 per year spent on healthcare	approx £3 per year spent on healthcare

Each of these illnesses will be more dangerous in the South because the child will have less food to eat and may not have recovered from the last illness.

(Taken from *World Health* by Janie Hampton)

1.3 Dialogue Reading

Read the dialogue and answer the following questions. Discuss your answers with a partner.

- Where does the dialogue take place?
Could it be in Mozambique?
- Who are the people involved?
- What kind of people are they?
- What's the problem?
- What are the health issues that are mentioned?



At the Doctor

- A: Good morning. Please come in and sit down.
 B: Good morning. Thank you.
 A: Now, what can I do for you? What's the matter with you?
 B: Well, it's like this. I have been feeling a bit under the weather these last two days and I've had this awful headache. And I don't know but I just seem to be getting worse.
 A: Um, a bad headache. Anything else? Have you been feeling tired?
 B: Oh, yes, pretty exhausted. And I've been coughing a lot too.
 A: I see. So, let me ask you some questions about your lifestyle. Do you smoke?
 B: Oh, yes. I've been smoking for years.
 A: How many cigarettes do you smoke a day?
 B: Oh, lots! But I've cut down a lot in the last month to only about 20 or 30. I've only smoked five so far today.
 A: So, what about exercise? Do you do any sports or get any physical exercise?
 B: Well, to be honest, not a lot. I'm not very keen on exercise. I haven't done any sport for a while now. But I walk to the pub every night and walk home again. And I really enjoy watching football on TV if that's any good!
 A: And how many hours TV do you watch a day?
 B: Oh, well, maybe 5 or 6 hours. But I'm not a couch potato as I always get up between programmes to get another beer from the fridge.
 A: Oh, really. And how many beers do you get through a day?
 B: Well, that's difficult to say. I've cut down a lot on those too recently so I only have four or five a night.
 A: How interesting! What about water? How much water do you drink on average a day?
 B: Well, actually, I don't like water at all so I don't touch a drop.
 A: OK. No water. So, let's think about your diet now. Do you think you eat well?
 B: Oh, definitely. I love my food.
 A: How many portions of fruit and vegetables do you think you eat every day?
 B: Oh, well, that is a tricky question. Of course chips are potatoes, aren't they, so, two or three portions of chips. And sometimes there's some lettuce or a slice of tomato in my hamburger. Other than that I'm not very fond of fruit and veg. I much prefer a nice sticky cake.
 A: Right, so, what about your job, Mr Smith? Are you under any stress? Do you get on well with your colleagues?
 B: Well, actually, I haven't been to work for the last week. They've really been getting on my nerves, asking me to do a lot of overtime. The boss even accused me of trying to get out of doing work by spending too long in the toilet. I ask you. Whatever next! No time to go to the loo.
 A: OK, I think I get the picture. Let's start with a few tests. Would you just hop on to the scales here so I can get your weight. Um... very interesting. And let me just listen to your chest. Uh huh, I see. OK, I think I have one or two little suggestions to make...

Now read the dialogue aloud in pairs with feeling.



1.4 Language Focus: Guessing from Context

Find the following expressions in the dialogue and decide on the meaning with a partner. Compare your answers with the rest of the class.



- | | |
|----------------------------|-------------------------|
| 1. a bit under the weather | 5. I don't touch a drop |
| 2. pretty exhausted | 6. a nice sticky cake |
| 3. I've cut down a lot | 7. to go to the loo |
| 4. a couch potato | |

1.5 Language Focus: The Verb "Get"

Go back to the dialogue in 1.3 and circle all the places where "get" is used. How many are there?

Does "get" have the same meaning in each example?

Now look at the examples and with a partner decide on the meaning of each "get".

1. I just seem to be getting worse.
2. Do you get any physical exercise?
3. I always get up between programmes to get another beer from the fridge.
4. And how many beers do you get through a day?
5. Do you get on well with your colleagues?
6. They've really been getting on my nerves,
7. The boss even accused me of trying to get out of doing work
8. I think I get the picture
9. ... so I can get your weight.

The verb "get" has lots of different meanings and uses. These are just some of them.

Now answer the following questions.

- In which examples does "get" mean "take" or "receive"?
- In which examples does it mean "become"?
- In which examples is it used as a phrasal verb or in an expression with its own specific meaning?

Look at the table of phrasal verbs and expressions with "get". Match the verb with its definition or synonym.

1. get up	a. understand the situation
2. get through	b. recover (from an illness)
3. get on well with	c. stand up or leave your of bed
4. get on someone's nerves	d. escape
5. get out of	e. consume
6. get the picture	f. annoy someone
7. get back	g. avoid
8. get over	h. have a friendly relationship with
9. get away	i. return



1.6 Language Focus: Present Perfect Simple and Present Perfect Continuous

Look at the following examples taken from the dialogue.

Present Perfect Continuous

1. I have been feeling a bit under the weather these last two days...
2. Have you been feeling tired?
3. I've been coughing a lot too
4. I've been smoking for years
5. They've really been getting on my nerves...

Present Perfect Simple

6. I've cut down a lot in the last month...
7. I've only smoked five so far today.
8. I've had this awful headache.

From the examples can you see the difference in use between the two tenses? Discuss your ideas with a partner and then with the rest of the class.

When we use the Present Perfect Continuous, we are interested in the activity itself or the duration of the activity. It is not important if the activity is finished or not. The five examples from the dialogue are all still taking place.

When we use the Present Perfect Simple, the important thing is that the activity has been completed. Examples 6 and 7 from the dialogue are finished actions where we are more interested in the result than in the activity itself.

Example 8 is in the Present Perfect simple because it is an example of a stative verb. Stative verbs are not normally used in the continuous form. Remember verbs like "understand", "believe", "see", "like" and "have" are stative verbs e.g. I've liked basketball for many years.

Compare the following examples.

Present Perfect Continuous	Present Perfect Simple
Where have you been? I've been playing football.	I've played football three times this week.
Pedro has been working too much recently.	He's worked ten hours so far this week.
He's been driving for three years.	He's just driven 110 kilometres from Maputo.
They've been eating too much since Christmas.	Who has eaten all my chocolates? My box is empty.

Now for each situation, write questions using the words in brackets (Q.). Then write the answers using the words in brackets (A.).

- You have a friend who is learning to drive. You ask:
Q. (how long/learn/to drive?)
A. (two months)
Q. (how many driving lessons/have?)
A. (six lessons)
- You have a friend in a rock band. You ask:
Q. (how many CDs/make?)
A. (two CDs)
Q. (how long/play together?)
A. (eighteen months)
- You have a friend who has flu. You ask:
Q. (how long/feel/under the weather?)
A. (for three days)
Q. (how long/have/a headache?)
A. (since yesterday)
- You have a friend who smokes. You ask:
Q. (how many cigarettes/smoke/today?)
A. (three so far)
Q. (how long/smoke?)
A. (about a year)
- You are doing a survey on teeth. You ask:
Q. (Brush your teeth/this morning?)
A. (yes)
Q. (How many times/go to the dentist/this year?)
A. (twice this year)
- You have a friend who is saving money to buy a car. You ask:
Q. (how long/save?)
A. (two years)
Q. (how much money/save?)
A. (about half of what is needed)

Task Cycle 2: Diseases

2.1 Language Focus: Symptoms and Treatment

Classify the terms in the box into symptoms and treatment.

1. Symptoms
2. Treatment

tiredness	rash	bed rest	bandage
constipation	stomach pain	headache	painkillers
inflammation	nausea	rehydration tablets	diarrhoea
weight loss	depression	antibiotics	vomiting
analgesics	fever	muscle pain	irritation
dressing	unconsciousness		cramps

What about the meanings? Check that you know them all with a partner, your teacher or a dictionary.

2.2 Pronunciation

Can you pronounce all the words in 2.1? Practise with a partner and then ask your teacher to say the words so that you can check.

2.3 Reading to Check

Look at the list of causes of disease below. With a partner write one of these causes next to each of the diseases in the table on the next page. You may need to write the same cause for more than one disease and more than one cause for some diseases. Write the letter in the causes column. The last one has been done for you as an example.

Causes of transmission of disease

- A. contaminated water or food
- B. insect bite
- C. blood or body fluid contact
- D. sexual contact
- E. contact with infected person
- F. coughs and sneezes of infected person
- G. unsterilised needles

Name of disease	Causes	Symptoms
HIV/AIDS		fever, rash...
Cholera		
Hepatitis A		dark urine, jaundice...
Hepatitis B		loss of appetite...
Malaria		shaking, chills...
Measles		fever, nasal congestion... conjunctivitis...
		weakness in muscles...
		muscle weakness...
TB (tuberculosis)		weight loss, chest pain...
Typhoid		tiredness, headaches, fever, stomach pain, sometimes constipation... Progresses to disorientation, delirium, diarrhoea, coma, intestinal bleeding...

Do you know the symptoms of these diseases from your general knowledge? Try to complete the symptoms column using symptoms from the list you made in 2.1.

Now read the text below to check your answers.

Some Common Diseases in Africa; their causes, symptoms and treatment

AIDS/HIV and other venereal diseases are widespread and very strict precautions should always be taken. Whenever you have sexual contact, you should use a condom. Hospital workers deal with AIDS victims on a regular basis and they are well aware of the dangers involved in using unsterilised needles.

Cholera – This is a bacterial disease transmitted mainly through contamination of food and water. Person to person transmission is rare. Severe cases of cholera start with watery diarrhoea and vomiting may also occur. The disease will quickly dehydrate you and it is therefore essential to use an oral rehydration solution containing water and salts. If a severe case is left untreated, the patient can become unconscious and go into a coma. You should take care with the water that you drink and also with any ice that you use. Be careful with raw and inadequately cooked fish or seafood and uncooked vegetables and salads as these may also be contaminated.

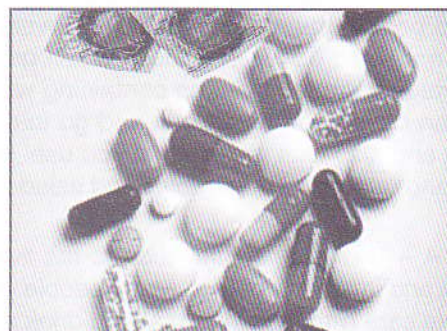
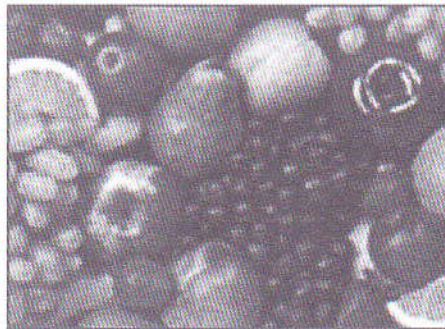
Hepatitis A – This is a viral infection of the liver transmitted through poor personal hygiene, poor sanitation and intimate contact. Many people get the disease through contaminated water or food. Again, take care with the water that you drink and with raw vegetables and salad, and uncooked or undercooked fish. The symptoms include fever, lack of appetite, nausea, abdominal pains, dark urine and jaundice. Hepatitis A is very rarely fatal and has no specific treatment other than rest.

Hepatitis B – This is only normally transmitted through blood, body fluid or sexual contact. The symptoms usually include loss of appetite, extreme tiredness, nausea, vomiting and stomach pain. The disease is an infection of the liver and can last from a few weeks to several months. In some instances the disease is incurable and some people remain infected for the rest of their lives. As in the case of Hepatitis A, there is no specific treatment for this infection.

Malaria – This disease is transmitted to humans through a mosquito bite. It is characterised within fourteen days by periods of chills, fever and sweats. Symptoms such as fever, shaking, chills, tiredness, headache, nausea, and vomiting can be seen. Treatment must be sought from a health professional and usually involves the taking of chloroquine and primaquine. The best way to prevent malaria is to take special precautions to avoid contact with mosquitoes. These include wearing sensible clothes at dawn and dusk, sleeping under nets, and fitting insect screens on the windows and doors.

Measles – This is a highly communicable disease, which is common among children. The main symptoms include fever, sneezing, conjunctivitis, cough and a rash. It can be dangerous, especially for children who are not well-nourished. The main treatment is to deal with the fever and to apply soothing creams to the rash. But it is important to watch for the development of serious conditions that would need specific medical treatment.

Tuberculosis (TB) – TB is a contagious illness that is spread to others when infected people cough or sneeze. People with low immune systems, poor nutrition and poor hygiene and sanitation facilities are the most likely to be affected. The symptoms are tiredness, fever, weight loss, cough, chest pains, shortness of breath, night sweats and blood in the saliva. Treatment involves a number of drugs taken over a long period of time.



2.4 Language Focus: Paragraph Writing

Now write a similar paragraph about Typhoid using the information in the table. Use the paragraphs in the text as examples of the language you need to use, and include the cause, symptoms and ways to prevent the disease.

2.5 Discussion: Classifying

With a partner classify the diseases into groups according to the way in which they are transmitted. Do you know the names of any more diseases you could add to the groups?

2.6 Language Focus: Pronunciation

Here is a list of the diseases. Practise their pronunciation to yourself and mark the stress in each word. Check with a partner and then listen to your teacher saying the words. Finally test each other's pronunciation.

HIV/AIDS	Hepatitis B	Tuberculosis
Cholera	Malaria	Typhoid
Diarrhoea	Measles	Yellow Fever
Giardiasis	Polio	
Hepatitis A	Sleeping sickness	

2.7 Language Focus: Vocabulary - Prefixes

What is the most common way of making opposites in English?

How many prefixes do you know that make the opposite of the word?

These are the most common ones – *un*, *in*, *im*, *ir*

Notice that "*im*" is used with words beginning with *p*, and "*ir*" is used with words beginning with *r*.

What are the opposites of the following words?

- | | |
|---------------|---------------|
| 1. possible | 7. dependent |
| 2. interested | 8. convenient |
| 3. frequent | 9. probable |
| 4. prepared | 10. clean |
| 5. polite | 11. relevant |
| 6. regular | 12. friendly |

2.8 Language focus: Giving Advice

In small groups prepare a poster giving advice on the prevention of these diseases. Use the text to come up with some preventative measures for each group of diseases. Use all the language we have practised on giving advice and expressing method. Look at the examples taken from the text.

Examples:

- *AIDS/HIV: "Whenever you have sexual contact, you should use a condom."*
- *Malaria: "The best way to prevent malaria is to take special precautions to avoid contact with mosquitoes."*

When your poster is ready, put it up in the classroom so that the other students in the class can see it.

(This can be done as a competition. Students can illustrate their posters and then take a vote on which is the best one. This one can then be displayed in the school.)

2.9 Dialogue Writing/Role Play

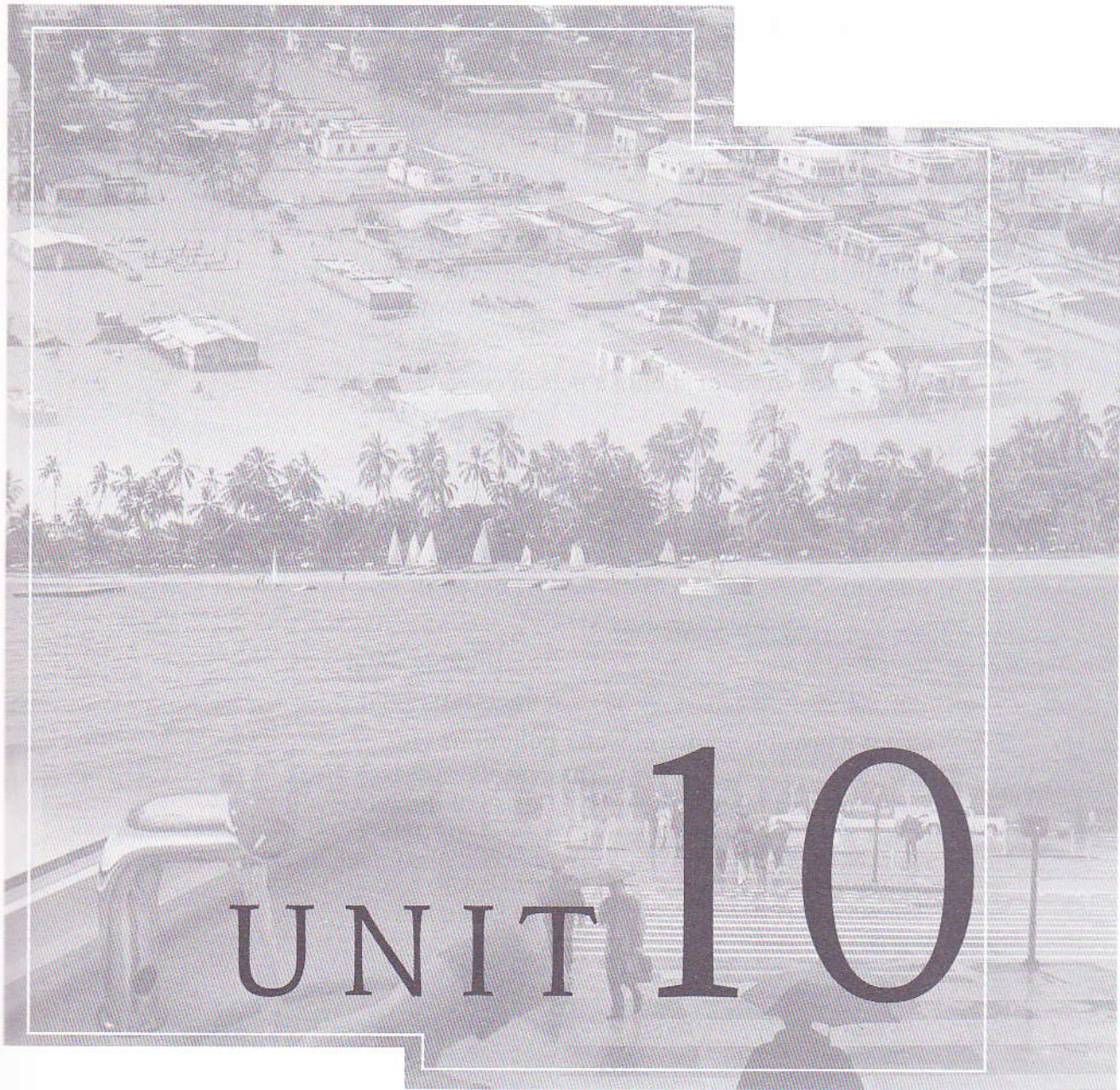
With a partner you are going to write a dialogue between a health officer or doctor and a sick person from a small town or village. Choose the illness/disease that the person has from the ones we have studied in this unit. Do not mention the name of the disease, as your classmates are going to guess it from the symptoms and treatment that you include in your dialogue.

When your dialogue is ready, check it with your teacher. Then practise it together before acting it out in front of the class. The rest of the class has to guess what is wrong with the patient.

2.10 Discussion and Ranking

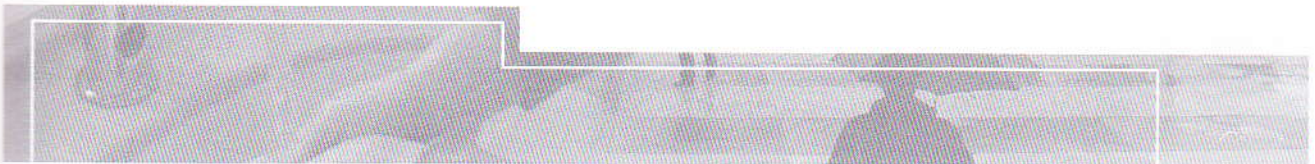
In a small group discuss what you think are main health issues that you need to deal with in your community. Talk about the problems, their causes and the ways in which you think they can be solved.

Then share your ideas with the rest of the class and rank all the problems according to their importance.



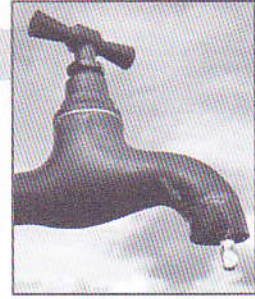
UNIT 10

Water



PRE - FOCUS**The Water Quiz**

Try this quiz with a partner. At the end of the unit come back and check your answers.



1. Clear water is clean water.
 - a) True
 - b) False
2. Approximately how long can a person survive without water?
 - a) one day
 - b) one week
 - c) one month
 - d) one year
3. About how much water should a person consume every day?
 - a) one glass
 - b) two glasses
 - c) five glasses
 - d) eight glasses
4. The gaseous state of a substance that is liquid or solid under ordinary conditions is called:
 - a) vapour
 - b) pressure
 - c) air
 - d) oxygen
5. Potable water is also known as:
 - a) irrigation water
 - b) raw water
 - c) drinking water
 - d) surface water
6. Which is a possible source of water pollution?
 - a) sewage
 - b) fertilizers and pesticides
 - c) oil or gas leak
 - d) all of the above
7. refers to moisture in the atmosphere.
 - a) Humidity
 - b) Temperature
 - c) Density
 - d) Drought
8. An aquifer is
 - a) water that has soaked into deep underground deposits
 - b) a reservoir
 - c) an irrigation ditch
 - d) a waterfall
9. A major cause of death in floods is
 - a) drowning
 - b) dehydration
 - c) typhoid and cholera
 - d) starvation
10. A water treaty is
 - a) a bottle used for storing water
 - b) a small body of water
 - c) a plant for cleaning water
 - d) an agreement between countries about how water shared

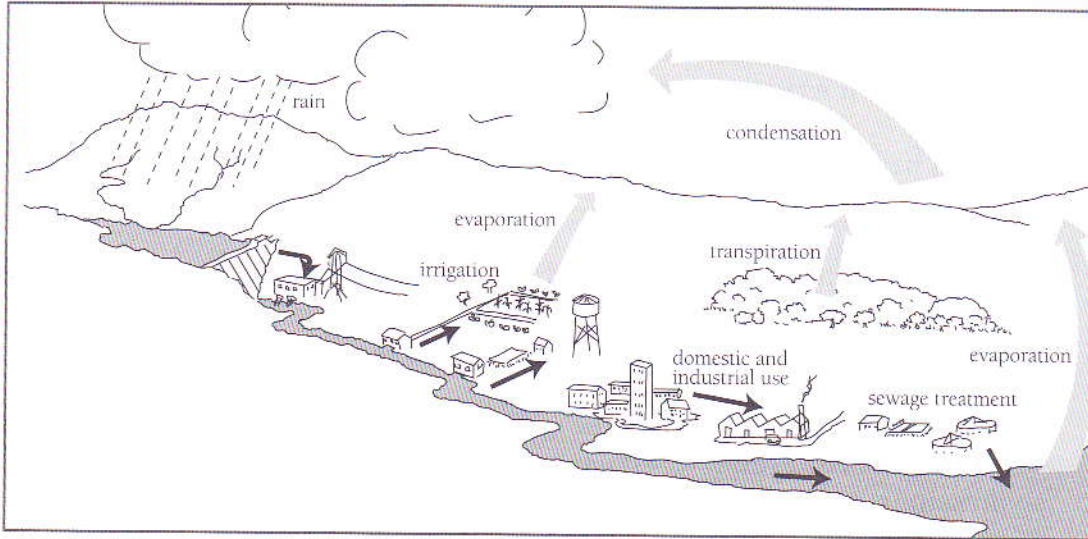
If there are words in the quiz that you don't know, find their meanings from a classmate, dictionary or your teacher.

Task Cycle 1: Rain

1.1 Describing a Process

With a partner use the diagram of the Water Cycle below to explain the process.

The Water Cycle



(taken from *Introduction to Human and Social Biology* by Don Mackean and Brian Jones)

1.2 Sequencing a Text from a Diagram

Use the diagram of the Water Cycle to put the sentences into the right order. Put a number next to each sentence. The first one and the last one have been done for you.

1	The Sun heats the water in the sea and any other wet surfaces causing it to evaporate.
	Clouds form.
	Water is transpired from plants and trees and forms water vapour in the air.
	Water moves from the rivers and lakes by gravity to the sea.
	Waste water includes sewage and industrial outfall.
	Rising air currents take the water vapour up into the atmosphere.
	Precipitation such as rain falls to the ground from clouds.
	The temperature decreases.
	The water forms water vapour in the air.
	Water from rivers and lakes form the chief natural sources of water for irrigating the crops, and domestic and industrial use.
	The water vapour condenses.
	Water collects in rivers and lakes.
	Rivers and lakes are often convenient places to dump waste water.
14	Since sewage often contains the pathogens of such intestinal diseases as typhoid or cholera, its presence in water that is to be used for drinking or washing is a hazard to health.

1.3 Language Focus: Cohesion in a Text

When you have numbered the sentences, check with a partner. Write the sentences in the correct order.

These sentences do not make a cohesive text. All the reference words (it, they, them, this, these etc), all the relative pronouns (that, which, where etc), all the sequence markers (first, then, after that) and all the cause and effect expressions (because, as a result, so etc) have been removed.

Look at sentence 1 and sentence 14 to see examples of these things. These are essential when writing a good, clear text.

The Sun heats the water in the sea and any other wet surfaces causing it to evaporate.

Since sewage often contains the pathogens of such intestinal diseases as typhoid or cholera, its presence in water that is to be used for drinking or washing is a hazard to health.

Now in a small group, rewrite the sentences from 1.2 in a better way including reference words, relative clauses, sequence markers and cause and effect expressions. Make any other improvements you can think of.

Finally, pass your writing to other groups and read theirs. Comment on the things you like about the other writings.

1.4 Language Focus: Definitions

Write a vocabulary test for a classmate. Choose four words from the following list and write definitions of them. Do NOT write the word as your partner is going to guess the term from your definition.

evaporation
 transpiration
 condensation
 formation
 precipitation
 irrigation
 dumping
 sewage

Now mark the stress on the words and practise the pronunciation. Check with your teacher.

Finally write the verbs next to the nouns. Be careful, one of them doesn't have a verb!



1.5 Reading for Details

How much do you know about the climate of Mozambique? With a partner decide if the following statements about the climate in Mozambique are True (T) or False (F). If they are False, correct them.

1. The climate is tropical only in the North of the country.
2. The warm Mozambique current flows northwards along the coast and doesn't affect the climate.
3. The wettest areas are between Beira and Maputo.
4. The driest areas are the highlands inland.
5. Tropical cyclones in the Indian Ocean occasionally hit the northern coast.
6. The island of Madagascar protects most of the coastal area from the wet south-east trade winds.
7. The coast and the lowlands tend to have low humidity.
8. The whole country has an average of five to six hours of sunshine a day.

Now read the text to check if your answers were correct.

The Climate of Mozambique

Although Mozambique extends outside the tropics in the extreme south, the whole country has a typically tropical climate. The extensive coastal lowlands are warm to hot for most of the year, while the interior plateau and the hills along the border with Malawi and Zimbabwe are mild to warm even in the cooler dry season from April to September.

The warm Mozambique current flows southwards along the coast and is an important influence on the climate of the country. The whole country experiences a single rainy season at the time of high sun, when the intertropical belt of cloud and rain is farthest south.

The wettest regions are the highlands on the Malawi and Zimbabwe borders and the southeast coast between Beira and Maputo, which are more exposed to the southeast trade winds throughout the year. Here annual rainfall is between 1,000 mm and 1,500 mm. The driest areas are the lowlands inland, particularly the Zambesi valley, with between 500-750 mm. In some places the annual rainfall is as low as 375 mm.

In the south most of the rain falls between December and March whereas farther north this period lengthens by a few weeks. The coast of northern Mozambique is occasionally affected by tropical cyclones in the Indian Ocean. Although these move south between Madagascar and the mainland, the majority pass east of Madagascar and hardly affect Mozambique. These cyclones bring heavy rain and strong winds that can cause extensive damage.

One reason for the comparatively low rainfall over much of the coastal lowlands is the shelter provided by the large mountainous island of Madagascar, which is fully exposed to the moist southeast trades. The eastern side of Madagascar is particularly wet when compared with Mozambique.

Temperatures on the coast and in some lowland regions can be rather sultry and oppressive, and this is made worse by the high humidity during the rainy season. In spite of the fact that the days may be hot inland at higher levels, there is a welcome drop in temperature at night and humidity is lower. Over most of the country the weather is fairly sunny for much of the year with an average of seven to nine hours of sunshine per day.

(Adapted from www.bbc.co.uk/weather)

1.6 Language Focus: Vocabulary - The Weather

Use the text to:

1. List as many words and expressions as you can to describe temperature.
2. List as many words and expressions as you can to describe wind.
3. List as many words and expressions as you can to describe rainfall.
4. List as many words and expressions as you can to describe geographical location.

1.7 Language focus: "For" and "During"

Look at the examples taken from the text. What is the difference between the use of "for" and "during"?

"The extensive coastal lowlands are warm to hot for most of the year"

"The weather is fairly sunny for much of the year"

"... and this is made worse by the high humidity during the rainy season."

We use "for" + a period of time to say how long something goes on.

for an hour for two weeks for a long time

- They studied English for an hour last night.
- We have been to the coast for two weeks.
- I am going to Nampula for a long time.

We use "during" + a noun to say when something happens.

during the summer during the lesson during her holiday

- The rainfall is much higher during the summer.
- He fell asleep during the lesson.
- She is going to learn to swim during her holiday.

Complete the sentences with "for" or "during".

1. It has been raining _____ ages.
2. We visited my uncle _____ our stay in Beira.
3. I stay at home _____ the week to do my homework.
4. I haven't seen my grandmother _____ two months.
5. They had a snack in the cafeteria _____ the break.
6. The young children fell asleep _____ the film.
7. Our teacher has been teaching English _____ several years.

1.8 Vocabulary – Weather Symbols

Match the weather symbols with their meanings. Write the number next to the symbol.

TV Weather Symbols



- | | |
|---------------------------------------|--------------------------------|
| 1. sunshine and expected temperatures | 7. temperatures below freezing |
| 2. snow | 8. dull-weather clouds |
| 3. degrees above zero | 9. sunny periods |
| 4. fair-weather clouds | 10. wind speed and direction |
| 5. thunderstorms | 11. rain |
| 6. sunny intervals and showers | |

(taken from www.longman.co.uk)

1.9 Listening

Listen to the weather forecast that your teacher is going to read, circle the correct weather forecast for each region and write the average day and night temperatures.

Maputo	
hot / warm / cool / cold wet / dry extremely high / high / low humidity sunny / cloudy	showers and sunny periods / heavy rain day temperature: night temperature:
Sofala	
hot / warm / cool / cold wet / dry extremely high / high / low humidity sunny / cloudy	showers and sunny periods / heavy rain day temperature: night temperature:
Tete	
hot / warm / cool / cold wet / dry extremely high / high / low humidity sunny / cloudy	showers and sunny periods / heavy rain day temperature: night temperature:

Now look at the table below and decide in which month this weather forecast was given. Give reasons and opinions using the information in the table.

Average Temperatures and Precipitation
in three areas of Mozambique (mm)

A=Rainfall; B=Average day temperature; C=Average night temperature

Month	Maputo			Sofala			Tete		
	A	B	C	A	B	C	A	B	C
Jan	130	30	22	277	32	24	152	35	21
Feb	125	31	22	213	32	24	163	34	22
March	125	29	21	257	31	23	117	33	21
April	53	28	19	107	30	22	13	34	20
May	28	27	16	56	28	18	3	33	17
June	20	25	13	33	26	16	3	30	15
July	13	24	13	31	25	16	3	29	14
Aug	13	26	14	28	26	17	3	31	16
Sept	28	27	16	20	28	18	0	35	18
Oct	48	28	18	132	31	22	8	38	21
Nov	81	28	19	135	31	22	28	37	22
Dec	97	29	21	234	31	23	99	37	21



1.10 Writing

Either:

A. Write a comparison of the three climate zones shown in the tables in 1.9. To illustrate your writing, draw a bar chart to show the comparative rainfall and draw line graphs to show the temperatures. Look back to Unit 6 to check how to draw these graphs.

Or:

B. Write a short report on the climate of your region. Use the text in 1.5 and all the other exercises in 1.6 – 1.9 to help you.

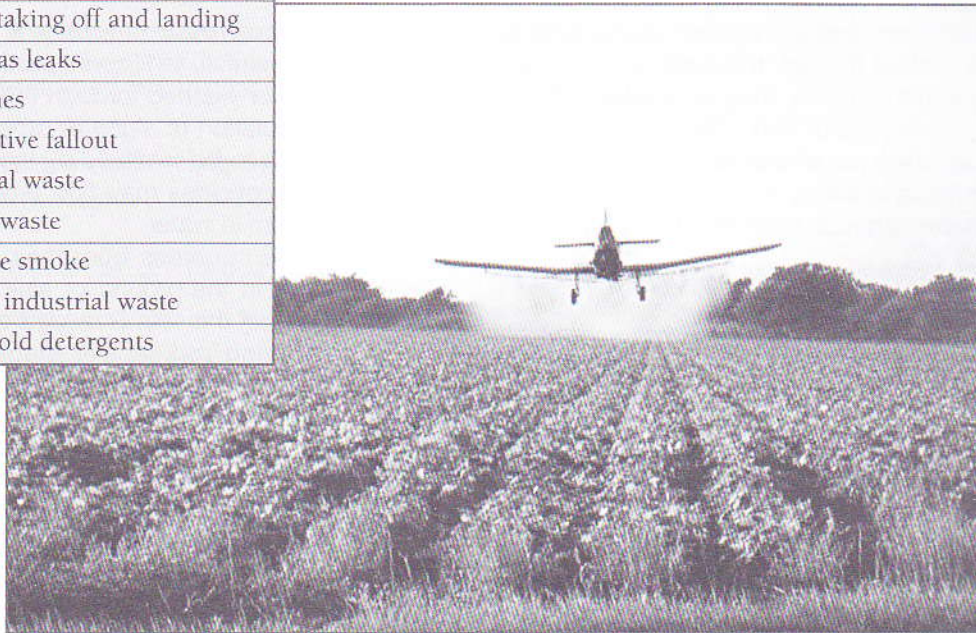


Task Cycle 2: Clean Water

2.1 Discussion

Which of the following do you think are causes of water pollution. Tick (✓) the first column.

Causes of Water Pollution	
<input type="checkbox"/>	burning of fossil fuels
<input type="checkbox"/>	sewage
<input type="checkbox"/>	pesticides and insecticides
<input type="checkbox"/>	planes taking off and landing
<input type="checkbox"/>	oil or gas leaks
<input type="checkbox"/>	car fumes
<input type="checkbox"/>	radioactive fallout
<input type="checkbox"/>	chemical waste
<input type="checkbox"/>	animal waste
<input type="checkbox"/>	cigarette smoke
<input type="checkbox"/>	soluble industrial waste
<input type="checkbox"/>	household detergents



Compare your answers with a partner and the rest of the class.

2.2 Reading

Read the following text to check the causes of water pollution.

Water Pollution

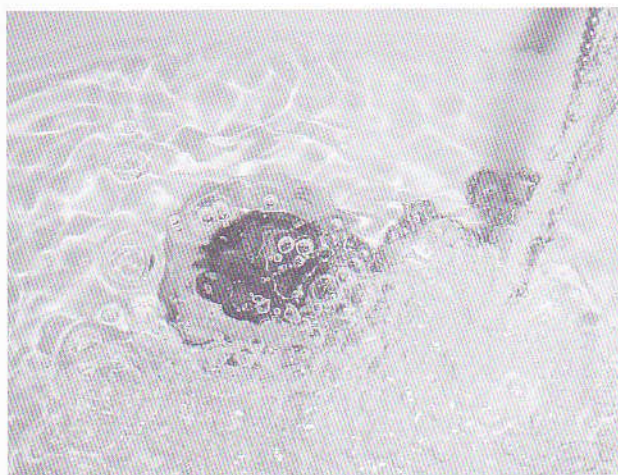
An adequate supply of clean water is essential for our healthy survival. Water makes up 70 – 75% of the body and to remain healthy we need to consume at least eight glasses of clean water a day. We would die within a week without adequate supplies of potable or drinking water. But even water that appears to be clear may contain pathogenic organisms. So in order to protect ourselves from a number of waterborne diseases, we must take special care to ensure our water supplies do not become polluted.

There are many causes of this pollution but probably the one that we are most aware of is sewage. When raw sewage finds its way into a river it causes pollution in several ways. The presence of pathogenic organisms in the sewage is a danger to the health of the people using the river water for washing or bathing as well as to those who drink it.

To a lesser extent, modern detergents can also pollute. We use them for cleaning things from clothes and kitchen utensils to industrial products, but the foam they produce, when mixed with water, is sometimes very difficult to destroy. It can be a nuisance in a sewage works since the treatment processes do not destroy the detergent chemical. When the treated sewage is discharged back into the river the foam may affect the oxygen supply of the fish and animals and may also cause plants to grow more rapidly, causing the blockage of rivers and lakes.

Factories of many kinds produce soluble waste materials which they have to dispose of. It is easy to discharge such soluble waste materials into a river or into the sea, but the effects may be disastrous. Organic waste has a similar effect to raw sewage while the wastes from chemical processes involving heavy metals such as copper and lead can be extremely poisonous. Chemical pollution of the sea can also be the result of the cleaning out of ships' fuel tanks or the disposal of untreated sewage. Oil spills from tankers can have disastrous effects on the fish, birds and animals living in the affected area.

Fertilizers that are spread on the land to produce better crops must be soluble if they are to be absorbed through the roots of the plants. In areas of heavy rainfall, fertilizers, particularly nitrates and phosphates, may be washed off the surface of the soil or washed through the soil to appear in spring water and rivers. Here they may increase the population of algae or other plants growing in the water and may result in much more material having to be removed by the filtration plant treating drinking water. In a similar way pesticides and insecticides may find their way into the water although their effect is seen more in the food chain than in water.



Some countries bury their nuclear waste deep in the ground or sink it in the deep parts of the sea. Provided care is taken in handling radioactive materials then the risk of pollution is very small indeed. However, problems may arise when things go wrong. If there is an explosion this represents a big risk to people living in a 20 km radius of the explosion and a lesser risk over a wider area. However, the radioactive fallout contaminates drinking water and crop plants and may be taken into the body.

(adapted from *Introduction to Human and Social Biology* by Don Mackean and Brian Jones)

2.3 Reading and Note-taking

Using the text in 2.2, write short notes on the different types of water pollution.

- | | | | | | |
|-------------------|--|---|----------------|---|-----------------|
| 1. SEWAGE: | | | | | |
| 2. DETERGENTS: | | | | | |
| 3. FACTORIES | <table border="0"> <tr> <td>—</td> <td>ORGANIC WASTE:</td> </tr> <tr> <td>—</td> <td>CHEMICAL WASTE:</td> </tr> </table> | — | ORGANIC WASTE: | — | CHEMICAL WASTE: |
| — | ORGANIC WASTE: | | | | |
| — | CHEMICAL WASTE: | | | | |
| 4. FERTILIZERS: | | | | | |
| 5. NUCLEAR WASTE: | | | | | |

2.4 Language Focus: Giving Reasons

There are several ways in which we can give reasons for things happening.

Examples:

owing to, because of, due to + noun

- The match was cancelled because of the rain.
- He missed his interview owing to the late arrival of his bus.

since, as, because + clause

- The match was cancelled because it started to rain.
- He missed his interview as his bus arrived late.

Complete the following sentences using information from the text. Use the grammar box above to help you to complete the sentences.

1. Sewage is a danger to our health owing to _____
2. Modern detergents can pollute because of _____
3. Organic waste from factories is dangerous for our health since _____
4. Wastes from factory chemical processes can pollute owing to _____
5. Fertilizers can cause problems in filtration plants because _____
6. Radioactive fallout can pollute as _____



2.5 Language Focus: Present Simple or Modals "May" and "Can"

Look at the following examples taken from the text. They include examples of Present Simple Active and Passive and the modals "can" and "may" used in the active and the passive form. As you already know, the Present simple is used to describe facts, especially in the case of processes that occur in nature. The modals, however, are used to show possible outcomes rather than definite ones.

"When raw sewage finds its way into a river it causes pollution in several ways."

"To a lesser extent, modern detergents can also pollute."

"...the foam may affect the oxygen supply of the fish and animals and may also cause plants to grow more rapidly."

"In areas of heavy rainfall, fertilizers, particularly nitrates and phosphates, may be washed off the surface of the soil"

Look back at the text and see how many examples you can find of the modals "can" and "may". They are all describing possible outcomes not definite facts.

Now complete the following text using either the Present Simple active or passive or the modal "can" or "may" in the active or passive form.



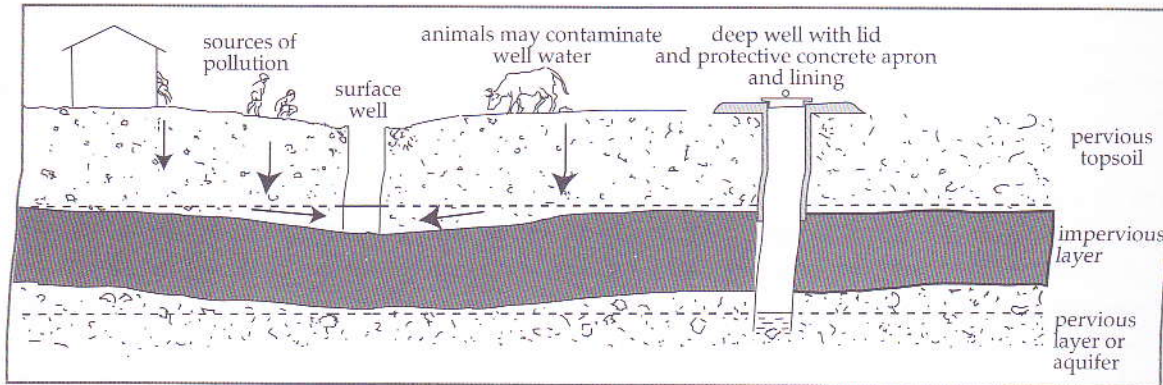
Choosing a source of water

Whatever the source of water it must supply a sufficient quantity to meet the needs of the community. Rainwater, which is naturally pure, _____^① (collect) from a roof, but there may not be enough of it to meet daily needs. Water _____^② (take) from a river or stream if it hasn't passed through another human community. If it has passed through a community where people _____^③ (urinate) or _____^④ (defaecate) near the water, waterborne diseases _____^⑤ (get) into the water.

Water _____^⑥ (obtain) from underground too. As the water _____^⑦ (soak) through the soil it _____^⑧ (reach) the underlying rock and either _____^⑨ (form) an underground store called an aquifer, or a spring. The water _____^⑩ (filter) to some extent as it _____^⑪ (pass) through the soil.

2.6 Language focus: Giving Reasons

Look at the following diagram and with a partner make a list of the reasons why we should use a deep well rather than a surface one. Add any more reasons you can think of.



(taken from *Introduction to Human and Social Biology* by Don Mackean and Brian Jones)

Now work with another pair. Tell them your reasons using the expressions *owing to*, *because of*, *since*, *because* and *as* that we practised in 2.4.

2.7 Reading for Details

Read the following paragraph about a recent water and sanitation project in Mozambique. Then with a partner discuss possible answers to the questions that follow. Ask for and give opinions using the language we have already practised.

Catarina Jacfod lives with her husband and six children in Nselema village in the Niassa district. Recently, with support and training from the organisation ESTAMOS, a partner of the international water charity, WaterAid, her community has built three wells and six new ecological sanitation (ECOSAN) latrines all with separate wash rooms attached. These projects have provided the community with simple, sustainable solutions to their water and sanitation problems.

1. Do you think the village was involved in the initial stages of the project?
2. Who do you think made the decisions about where to put the wells and latrines?
3. How do you think the village people could contribute to the project?
4. Who do you think dug the wells and latrines?
5. There is someone called a village activist involved in the project. What do you think his/her role is?
6. Do you know what different methods can be used to get water from a well?
7. Who do you think looks after the well in a village?
8. Do you know how these new ECOSAN type of latrines work?

Now read the following paragraph and compare your answers.

The community were involved from the start of the project. Through discussions they decided what they needed and where the wells and latrines should be built. After the planning stage they had a choice whether to contribute money, farm produce or work towards the construction of the schemes. This community chose to dig the wells and latrines – then a construction company completed the projects. There is also a village activist here who is responsible for telling people about hygiene, explaining how to use the new latrines properly and how to look after the wells and keep them clean.

"Our community decided that the best place to build the well was next to the mosque so that people can easily wash before they enter", says Catarina. "We chose to have a bucket for our well as it is very difficult to buy spares for hand pumps here. The rope on the well broke recently and so now we are using a bicycle chain instead. This is much better as it lasts longer and we can buy them close by. Everyone looks after the well. Anyone who sees it is dirty cleans it."

Fatima Mamado, Catarina's neighbour is one of the villagers whose family now has an ECOSAN latrine. This toilet has twin pits and a separate wash room. While one pit is in use the other is sealed and the contents decompose into rich compost which they can then use for their plants. After using the latrine users add an ash/soil mix which helps make the compost and also acts as a kind of soap; as the users hands are dirty they wash them in the separate washroom.

2.8 Language focus: Used to, Didn't Use to/Compare and Contrast

There are two tables on the next page, which show the differences between the past and the present situation in Nselema village. One table shows the differences in the water situation and the other one shows the differences in the sanitation situation. The class will be divided into two, Students A and Students B. Students A are going to use the information in Table A to write about water. Students B are going to use the information in Table B to write about sanitation.

Students A

In small groups of 3 or 4 students write about the situation with water in Nselema village using Table A. Your text should include "used to" and "didn't use to", past tenses and present tenses, and all the expressions we have practised for comparing and contrasting like "while", "on the other hand", "unlike" etc.

E.g. My mother used to fetch water from the river whereas now we have a well in the village.

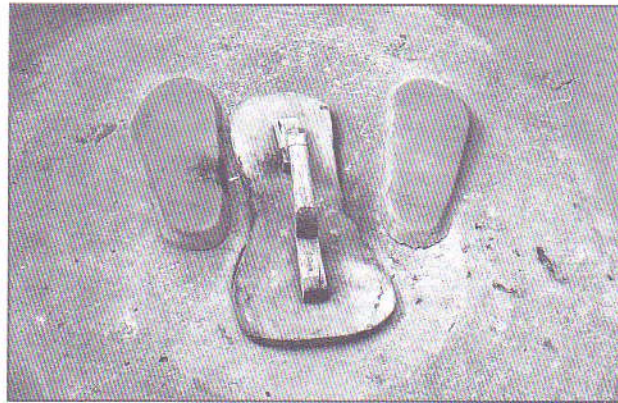


Table A – Village water

Past	Present
women collected water from marshy area	women use well in village
in rainy season all dirt including faeces washed into water	dirt-free covered well
far to walk for water	close to home – go there five times a day
pigs drank from same source	well protected from animals
people with diarrhoea	no diarrhoea
children often sick	children healthy
cholera in nearby places	no cholera
less use of water	use more water – washing, drinking, cooking etc
life difficult educating children	life easier – more time for other things such as

Students B

In small groups of 3 or 4 students write about the situation with sanitation in Nselema village using Table B. Your text should include "used to" and "didn't use to", past tenses and present tenses, and all the expressions we have practised for comparing and contrasting like "while", "on the other hand", "unlike".



E.g. We used to use a hole with wood across the top whereas now we have a toilet with pits.

Table B – Sanitation

Past	Present
hole with wood across top called a pit latrine	toilet with pits, one in use and one sealed to make compost
lots of flies, smelly	properly covered so no flies or smell
flies contaminated food	no flies
people with diarrhoea	no diarrhoea
no separate washroom to wash hands	separate washroom for washing hands
no privacy in toilet	privacy
no compost for plants	rich compost for using plants

(adapted from www.aquamedia.at)

Task Cycle 3: Natural Disasters

3.1 Presentation: Newspaper articles

The class is divided into three groups. One of these groups reads Text A, one reads Text B and one reads Text C. As you read your texts, write a list of key words to help you retell the story of the disaster to your classmates. Each group prepares a presentation on the disaster they have read about. When the presentations are ready, the groups reform. The new groups consist of three students: one who read Text A, one who read Text B and one who read Text C. The students now present a summary of their disaster to the other two students in the group.

Text A:

Hurricane Katrina

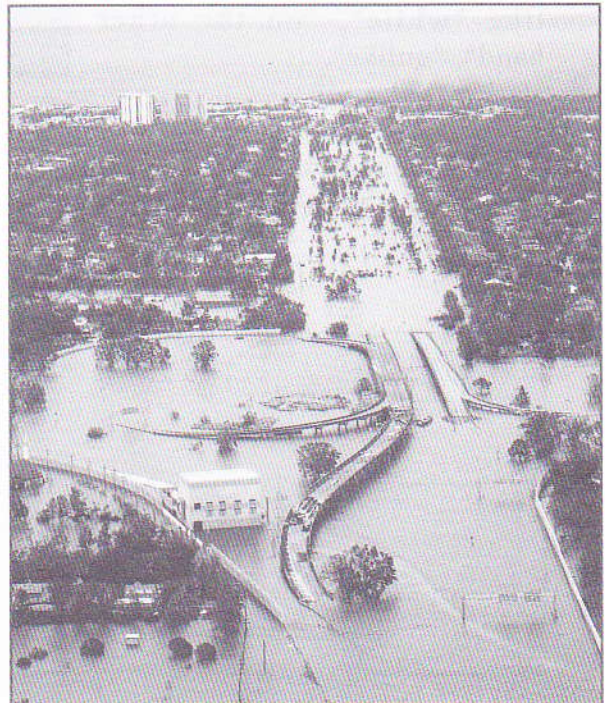
Hurricane Katrina began as a very low pressure weather system, which strengthened to become a tropical storm and eventually a hurricane as it moved west and neared the Florida coast in the southern USA on the evening of 25 August, 2005.

While crossing southern Florida it left some 100,000 homes without power. It then strengthened further before turning inland towards Louisiana, eventually hitting the coast at Grand Isle, approximately 90 km south of New Orleans, at 10am local time on 29 August.

At this point, Katrina's sustained wind speed was approximately 200 km/h. The storm passed directly through New Orleans, destroying many lighter buildings and causing extensive damage to others. The levees, which protected New Orleans from the sea, were broken and extensive flooding took place.

Most people had already left the town but others, who were sheltering in the local stadium, had to be evacuated because the town became uninhabitable. Luckily, in New Orleans only about 56 people lost their lives thanks to the early warnings and the mass evacuation procedures. Over the whole area, however, the death toll stands at 1383.

There was a Presidential crisis when it became obvious that there were not enough boats, helicopters or buses available for rescue operations to take place smoothly. Some people had to be forced to leave their homes owing to the risk of waterborne diseases and the lack of food. Riot police were brought in to stop the looting of shops and houses.



Text B:**Tropical Storm Stan**

Tropical Storm Stan devastated large parts of Guatemala, El Salvador, and Mexico. On 4th October 2005, Stan came ashore as a Category One hurricane but quickly lost force. The storm produced landslides, flooding, and high winds throughout its path through southern and eastern Mexico and Central America, as more than 500 mm of rain fell. Most of the damage was done by torrential rains.

The Lake Atitlan area in the Guatemalan highlands was hardest hit. Flash floods and mudslides destroyed entire villages; roads and bridges were blocked, and there was no electricity. The search for survivors was called off and the death toll rose to 2,000 or more. More than 1,400 indigenous Maya people were reported dead from one community, Panabaj, which disappeared under a mudslide.

Thousands lost their crops, homes and all their belongings. More than a third of the victims were children, according to UNICEF. The survivors stayed in makeshift shelters, churches and on the streets without food and clean water. An amazing number of individuals and NGOs worked on disaster relief providing food, shelter, clean water and clothes.

(adapted from <http://news.bbc.co.uk>)



Text C:**Floods in Mozambique**

In early 2000 a cyclone swept across southern Africa leading to three weeks of severe floods which devastated Mozambique.

As the waters subsided in Mozambique following the worst floods in living memory, relief efforts turned to feeding and sheltering the survivors. Nearly one million people were destitute. They needed clean drinking water, food, medical supplies and temporary shelter. But all this had to be provided in the context of a shattered infrastructure - roads, railways and bridges were destroyed and clinics swept away.



Alison Woodhead of the Disasters Emergency Committee (DEC), which was co-ordinating the UK appeal, said the top priority was providing clean water.

"Although the waters are receding in the south, in some ways it is just the start of the problems because they leave behind dead bodies and filthy pools of standing water," she added. "Ironically in a country that has been under water for weeks, dehydration is one of the biggest problems and possibly the biggest killer, particularly for the young and old."

Aid workers feared the death toll would also soared as a result of water borne diseases such as malaria and cholera, which were both already endemic in Mozambique before the floods.

Relief agencies distributed hygiene kits, including oral rehydration salts and antibiotics, and collapsible water tanks, which were mounted on lorries and driven to affected areas. Helicopters and boats have been invaluable in the rescue operations. The UN said 10,000 people were rescued from immediate danger and the search and rescue operation was over. However, pockets of people were still stranded on islands of high ground and in need of assistance.

(adapted from <http://news.bbc.co.uk>)

3.2 Ordering a Text**Background information**

On December 26th 2004, an earthquake jolted the ocean floor off the coast of Sumatra. This resulted in a tsunami which caused damage from Indonesia to the coast of South Africa. The word tsunami means "harbour wave" in Japanese. Some people call tsunamis "tidal waves" but this is misleading as tsunamis are not related to tides.

The paragraph that follows is really a mixture of two different paragraphs about tsunamis, with the sentences in the wrong order. Read the text carefully. Draw a **straight line** under all the sentences of one paragraph, and draw a **broken line** under all the sentences of the other one. Then, read the text again and number the sentences of the first paragraph 1 to 9, and of the second paragraph A to G. Re-write the two paragraphs in the correct order.

All the people from the village were watching the sea in amazement when we heard a loud roaring noise. I managed to catch hold of a palm tree and clung on with all my strength as I saw people, houses, and boats carried past me and on inland. A tsunami wave may be hundreds of kilometres in length. Because of the depth of the water, the wavelengths of these waves are much longer than normal waves. When it reaches the shore, it is usually travelling at about 70 kph. Then, suddenly, I saw an enormous wall of water about 30 m high, which was racing towards us. I thought it must be an earthquake and went down to the beach to see what was happening. As the water tries to regain its equilibrium, waves are formed. It was 8.00 in the morning on December 26th 2004. When an earthquake or other major disturbance causes a section of the ocean floor to rise or sink abruptly, the mass of water above the affected area is suddenly displaced. Everyone screamed, turned and ran as fast as they could inland, away from the wave. I was making breakfast for the children when I felt the ground shake for two to three minutes. It moves at high speed across great distances without losing much energy. But it caught up with us and picked us up along with trees, cars, all kinds of debris. As the wave approaches the land and moves into shallow water, it slows down and increases in size. About twenty minutes later there was another tremor.

Where do you think you would read these texts?

- a) in a scientific textbook
- b) in a novel
- c) in a newspaper
- d) in an instruction manual

Paragraph A...

Paragraph B...

3.3 Language Focus: Vocabulary – Dramatic Adjectives and Verbs

In paragraph A we can see lots of examples of dramatic choice of both adjectives and verbs.

Examples:

a loud roaring noise

an enormous wall of water

Everyone screamed

which was racing towards us

I clung on with all my strength

Complete the table by matching the dramatic adjectives with their meanings. There may be more than one word with a similar meaning.

tiny	great	astonished	enormous	furious	dreadful	huge
ecstatic	miserable	immense	awful	devastated	wonderful	
		amazed	delighted	sad	cross	

big	
small	
happy	
unhappy	
surprised	
angry	
bad	
good	

Complete the table by matching the dramatic verbs with their meanings. There may be more than one word with a similar meaning.

snatch	despise	adore	shout	detest	speed	dawdle	love
	scream	grab	whisper	hate	race		

speak loudly	
speak quietly	
go fast	
go slowly	
take	
like	
don't like	

3.4 Writing

This can be done individually or in small groups.

You have decided to enter a magazine story competition. You have to write a story in which you are caught in a flash flood. Write a personal account of what happened to you. Make your writing as dramatic as you can by using adjectives and verbs like the ones you studied in 3.3. Put in dramatic linkers like "suddenly" etc. and make sure you include verbs in both the Past Continuous and in the Past Simple.

When the stories are finished, they can be put up in the classroom (NO NAMES!) and the class, the teacher or the school director judges which is the best.

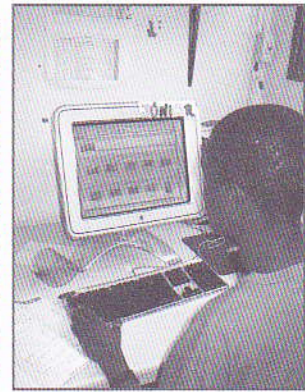


UNIT 11

Leisure Activities and Tourism



PRE-FOCUS



In a group of three or four students you are going to make a list of all the ways people spend their free time. You have a time limit of five minutes.

When you have checked these activities with a teacher, think of a way to categorise them into types of activities. There are several different ways of doing this. Add more activities from the lists of the other groups.

Task Cycle 1: Leisure Activities

1.1 Language focus; Vocabulary

How many of the activities in the box below did you get in your list? Add any you didn't have to the categories you organised your words into.

Are there any you don't know? If there are, find out their meaning from a partner, a dictionary or your teacher.

sailing	reading	basketball	parachuting	going to concerts
chatting	watching TV	riding a bike	playing cards	squash
snorkelling	bird watching	climbing	football	listening to music
windsurfing	hiking	dancing	cooking	watching movies
volleyball	tennis	swimming	sightseeing	playing the piano
canoeing	abseiling	scuba diving	rallying	playing computer games
photography	going to the theatre			

1.2 Reading and matching

Read what four people have to say about what they like doing in their spare time. Choose activities from the box in 1.1 that you think they would enjoy doing.

Which of the people is most like you ?

PERSON A

I'm definitely a water person. I think I was probably a fish in another life. I could spend all day every day out at the beach or in the swimming pool. Obviously it's important to have good, warm weather for me to do all my favourite things. I'm particularly good at anything that involves boats and I suppose some of my water activities can be rather expensive as they require a lot of specialised equipment and training courses. I love fresh air and healthy activities.

PERSON B

Well, I'd probably describe myself as the original couch potato. I can't stand anything to do with sports and using up your energy getting sandy and dirty at the beach or up in the mountains. I'd rather lie on the sofa any day or sit in front of my computer. Maybe people are right when they say I'm a bit anti-social but what I really enjoy most is getting totally involved in a great novel – science fiction is a great favourite of mine. I can spend hours in front of the TV and I'm particularly fond of all those popular soaps and any kind of thriller. Don't ask me to go out, especially in the hottest months of the year. I'd die!

PERSON C

What do I like doing in my free time? Well, I suppose there has to be some sort of ball involved and usually a great group of mates to spend the time with. Personally, I'm not so keen on the kind of games where you're on your own. They strike me as pretty boring. I'd rather be involved in some kind of joint effort or competition. I've got bags of energy and I'm very fit from all that running round. It's hard to say which is my favourite game as they can all be really great fun with the right crowd of people.

PERSON D

You want to know how I like spending my free time? That's pretty hard to say as there are so many things that I really enjoy doing. First of all, I suppose being with my friends is at the top of the list. I'm very gregarious and hate spending time on my own. My own company is so boring. There's a big group of us who do everything together. I spend a lot of the day sleeping in preparation for the good things in life, which start somewhat later on. I'm into every type of music, the louder the better. I can't enjoy anything without noise! Not peaceful country walks and candle-lit dinners for me – no way! I'm the original social animal.



1.3 Language Focus: Expressing Likes and Dislikes

In the previous short texts there are lots of examples of ways of saying what you like and dislike doing. How many can you find?

For example:

- I'm particularly good at anything that involves boating...
- I love fresh air and healthy activities.

These are some of the patterns that are used to describe likes, dislikes and preferences.

I	like love enjoy prefer I don't like can't stand hate	+	verb + ing (e.g. I really enjoy playing football)
---	--	---	--

I'm (not) good at I'm (not) keen on I'm (not) fond of I'm (not) into	+	verb + ing (e.g. I'm really keen on swimming)
---	---	--

I spend (a lot of) time	+	verb + ing (e.g. I spend a lot of time listening to music)
-------------------------	---	---

My favourite (noun)	is	verb (e.g. My favourite hobby is cooking.)
---------------------	----	---

I'd (would) rather	+	verb (e.g. I'd rather play computer games than watch TV.)
--------------------	---	--

Now complete the following text by putting the best word or expression in each space.

Pedro Morais is a very busy man. He's a well-known architect, who has designed many different buildings. He's particularly good _____^① creating new buildings that retain the character of the area where they are built. He says that he doesn't like _____^② buildings that don't fit in with the surrounding area. He _____^③ a lot of his time in his studio experimenting with different styles. His _____^④ design is a hotel he built that is in the style of the local village houses.



He doesn't have much _____^⑤ time but he tries to keep fit. He is particularly _____^⑥ of playing football and joins a group of friends to play every Saturday afternoon. When he has time, he _____^⑦ go out for a meal with friends than go to a movie because he is a very _____^⑧ person. His _____^⑨ dish is prawns with piri-piri sauce.

For his annual holiday, he enjoys _____^⑩ to the beach where he can go _____^⑪ on the coral reefs, as he is really keen _____^⑫ studying the natural world.

1.4 Language Focus: Personal Qualities

Match the characteristics in the box with the four people A, B, C and D in 1.2.

active lazy sociable competitive anti-social energetic
 fit thoughtful musical gregarious quiet dynamic
 healthy boring noisy talkative co-ordinated
 co-operative friendly

PERSON A: _____ PERSON C: _____
 PERSON B: _____ PERSON D: _____

Can you think of any more adjectives you could use to describe these four people?
 Which of the adjectives best describe your personality?

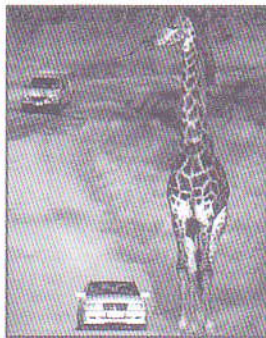
1.5 Writing

Write a paragraph about yourself describing the leisure activities that you like and dislike, the things you are good at or not good at, and your main characteristics. Try to use all the language we have studied in Task Cycle 1.

Task Cycle 2: Types of Holiday

2.1 Listening

Your teacher will now read to you a text containing descriptions of three different holiday destinations in Mozambique. Make notes in the table below with the details that you hear about each. Include information about the price, accommodation, facilities, food and leisure activities available.



Benguerra	Kruger Park and Southern Mozambique	Maputo and Inhaca
most luxurious, oldest, most well-known ...	slightly cheaper ...	cheaper, livelier ...

Compare your answers with a partner.

2.2 Language Focus: Comparatives and Superlatives

Complete the following table with as many adjectives as you can find in your notes. Write the comparative form and superlative form of each one.

	Adjective	Comparative	Superlative
adjectives with one syllable	cheap	cheaper	the cheapest
adjectives ending in "y"	busy	busier	the busiest
adjectives with more than one syllable	luxurious	more luxurious	the most luxurious

Task Cycle 3: Ecotourism

3.1 Discussion

Tourism is good and bad, beneficial and harmful, necessary and wasteful. Talk to a partner about tourism and make a table of advantages and disadvantages with as many ideas as you can think of.

Advantages	Disadvantages

3.2 Reading

Read this text about tourism and compare it with your table from 3.1. Does the text mention anything that you didn't think of? Did you think of anything that the text doesn't mention?



The Benefits of Tourism

Tourism is the world's biggest industry. It can be one of the most beneficial industries for developing countries, bringing in much-needed investment. Developing countries have considerable natural advantages, such as sunshine, rich cultures or national parks, all of which can encourage tourism. Most governments promote tourism and remove barriers to international and internal travel. For many developing countries, tourism is an important source of foreign currency and employment. In 1996 the world-wide tourism industry provided 250 million jobs and had sales of \$3.6 trillion. By 2006, it is forecasted to provide 385 million jobs and sales of \$7.1 trillion. Currently it employs 10% of the world's workforce. It is also a popular sector for investment. For example, in Eastern Europe investment in tourist infrastructure is expected to grow by 140% between 1997-2007.

The Problems with Tourism

Tourism can also be one of the world's most damaging industries. In the first place, air travel has made travelling around the world cheap and easy for those who have enough money, but it is one of the biggest sources of atmospheric pollution. In addition to this, tourism often leads to the destruction of the very places people want to visit. As tourist destinations become more popular, they become more built up as the big corporations come in to build airports, roads, or hotels. This often takes away valuable resources, such as clean water, from the native population. As well as this, if the business is dominated by international corporations, such as tour operators and hotel chains, many of the profits and benefits may not reach local businesses and people at all. Also, tourists are not always interested in the local culture of where they are staying, treating it as a source of entertainment rather than as an enriching experience.

(Adapted from *Sustainable Human Development*, 2002 Peace Child Charitable Trust)

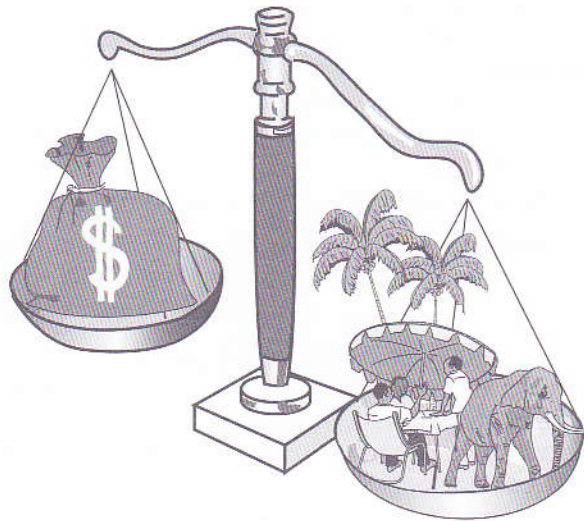
3.3 Discussion

In a country like Mozambique, how can we get the advantages of tourism without suffering from the disadvantages? One solution is Ecotourism. This is short for ecological tourism, and it is defined as "responsible travel to natural areas, which conserves the environment and improves the well-being of local people."

Ideally, true ecotourism should satisfy several criteria, such as:

- The local environment must be conserved, not only in terms of the wildlife and plantlife, but also of the local culture.
- There should be sustainable use of local resources, by providing local people with jobs.
- There should be agreement by the local people to the tourist project; they should participate in its construction, management and operation, and share in the profits.
- There should be an increase in environmental and cultural knowledge.
- There should be guarantees that the impact of the tourist project on the environment is minimized.
- There should be no waste, which means the tourist resort or facilities should not be luxurious.
- The main attractions for the tourists should be the local wildlife, plantlife and culture.

(Adapted from <http://en.wikipedia.org/wiki/Ecotourism>)



Of the seven points listed above, which do you think is the most important? Which is the least important? Discuss it with a partner and see if most people in the class agree with you.

3.4 Language Focus: There should be

Five out of the seven points in 3.3 use the expression *There should be*. Read them again. Other forms of this verb are: there is, there are, there was, there were, there will be, there must be, there could be etc.

Complete the following sentences in a way you think is true:

- In cities, there should be...
- In schools, there should be...
- In hospitals, there should be...
- On television, there should be...
- At football matches, there should be...
- On the roads, there should be...
- There should be laws to...

3.5 Reading: Comparing Information from Different Texts

The following text, written in 2002, describes plans for an ecotourism project in Mozambique. Read it carefully, and compare it with the seven points in 3.3. Do you think that the resort described here conforms to the definition given above? Can you find evidence in the text for each of the seven points?

Cabo Delgado, in Mozambique, has been identified as an ideal site for an ecotourism project. The area is one of the most important African conservation projects of the Zoological Society of London, because of its exceptional biodiversity. It has over fifteen land habitats, including endangered coastal forest, and there are populations of elephants, buffalo, hippo, lion, leopard, wild dog and several antelope species. A marine survey revealed rare habitats such as sea-grass beds and found coral reefs that are among East Africa's richest, with diverse fish life and endangered species including turtle, humpback whales, dugong and whale shark.

The conservation and community initiatives will be paid for by luxury tourism. The numbers of visitors will be limited, but the area is large enough to support five eco-lodges. These will be situated in different areas, so that visitors can move between coastal, island and inland habitats.

The first two lodges will open in 2003, on Vamizi island and on the 35 km-long mainland beach. In 2004 two lodges are planned for the 33,000 hectare inland area, where expert guides will lead game drives and walking safaris through diverse habitats including mangrove swamps, wetlands, coastal forest and acacia savannah. A further lodge is planned for Rongui island, as a base for deep-sea fishing. Guests at coastal lodges will also be able to scuba dive, join marine wildlife expeditions and explore nearby islands by catamaran or dhow. Within the concession is a ruined Portuguese fort and the historic island of Ibo is nearby.

An essential component of the project's success will be the involvement of local communities. All have given their written approval and are expected to benefit through skills acquisition, employment, small business initiatives and the creation of a community fund to provide assets such as schools, clinics, grinding mills and wells.

The receipt of direct financial benefits from their wildlife will hopefully motivate the local people to ensure its conservation. Community relations specialists have visited to ensure that the partnership between tourism, conservation and communities runs to the benefit of all.

Guests will be encouraged to visit and participate in conservation activities, including cataloguing terrestrial and marine fauna and flora, identifying human-wildlife conflicts and potential resolutions and developing sustainable-use programmes. The project will also help protect adjacent areas by employing, training and equipping wildlife guards from local communities.

(Adapted from <http://www.travelafricamag.com/content/view/456/56/>)



3.6 Reading: Matching Meanings

These are paragraph headings for the text in 3.5. Put them in the right order, according to the text:

- A. Local participation in the project.
- B. The activities on offer in each habitat.
- C. The positive contribution of tourists to the local environment.
- D. Reasons for the selection of this area for an ecotourism project.
- E. The location and distribution of the tourist accommodation.
- F. The cooperation of all parties involved.

3.7 Vocabulary

The following words and expressions are related to tourism, and specifically ecotourism. Divide them into these five groups. Do any of them belong to more than one group?

- A. refers to a place
- B. refers to a person or people
- C. refers to an activity
- D. refers to a natural resource or attraction
- E. refers to money, or the financial aspect of tourism

site plant life guests shark habitats endangered species turtles
 scuba diving culture sunshine investment foreign currency
 guides tourist destinations tour operators profits resort wildlife
 sea fishing explore national parks flora and fauna safari
 accommodation facilities biodiversity coral reefs whale





3.8 Discussion and Mini-Presentation

Work in groups of four or five.

Discuss the possibilities for an ecotourism resort of some kind in the area where you live, or in an area that you know. When you have identified a suitable area, think about what kind of facilities you could provide. Remember that if it is to be a real ecotourism resort, you have to try to comply with each of the seven points listed in 3.3.

Present your plan to the whole class, and then vote on which is the best one. (In the voting, you're not allowed to vote for your own plan!)

UNIT 1: NATURAL RESOURCES

Pre-focus

Possible definition: Materials found in nature which are essential or useful to humans, such as water, air, land, forests, fish and wildlife, topsoil, and minerals.

1.1

1. False. About 20% is covered with trees. 2. True. Saudi Arabia is the world's largest producer of petroleum. 3. True. 4. False. Platinum normally costs twice as much as gold. 5. True. There are three onshore gas fields, Pande, Temane and Buzi-Divinhe. 6. True. 7. False. They are rich countries, but they have very few natural resources. 8. True. About 70% of the Earth's surface area is water. Of the other 30%, only one third is arable. 9. True. Prawns are one of Mozambique's biggest exports. 10. False. UK, Norway and Denmark extract oil from the North Sea.

1.2

First part depends on students' own answers to the quiz. Pedro seems to know more about natural resources.

1.3

Making a suggestion: Let's (read them one by one), shall we? Shall we (ask Miguel)?

Asking for an opinion: What about (the first one)? What do you think? That must be true, don't you think? What about you? Don't you agree? Do you really think so?

Giving an opinion: I'd be inclined to say (false). Well, it seems to me (that doesn't necessarily follow). I think (that's what Taiwan does). It must be (more like fifty percent). I wouldn't be surprised if (it was true). Definitely!

Agreeing: I'll go along with that. Definitely, I agree. OK then. I suppose you're right. Well, yes, that's true I suppose.

Disagreeing: I'm not so sure. Oh, no. I don't agree with you there. Are you really sure about that? Mm, I'm not so sure about that. OK, let's just agree to differ on that one.

Shall; think; sure; Let's; shall; Let's; think; sure; inclined; agree; Let's; know; positive; shall; seems; agree; Let's; along; suppose; let's; think; Definitely; agree

1.5

1.D 2.C 3.B 4.C 5.B 6.D 7.A/C 8.C 9.A 10.D

1.6

1. What does George's company produce? 2. Where does Pedro work? 3. How are the products transported to the coast? 4. How many good roads are there connecting the city and the coast? 5. Are the roads that connect the city and the coast well-maintained? 6. How many people does George's company employ? 7. Are all the documents used by the company translated into three languages? 8. How are the documents sent to the branch offices? 9. How many airports are there within reach of the company headquarters? 10. Are both airports suitable for heavy jets?

2.1

The two most obvious ways to classify are 1.- A (names of resources) diamond, petroleum, titanium; B (properties) strong, abrasive, beautiful, made up of hydrogen and carbon, doesn't react with other substances, transparent, light, hard, resistant to corrosion, made up of molecules of different masses; C (products) artificial body joints, plastics, body piercings, propellers of ships, spectacle frames, asphalt in road-making,

jewellery, pesticides, surgeons' scalpels, fuel for cars, dentists' drill OR 2.- A diamond: hard, abrasive, beautiful, transparent, jewellery, surgeons' scalpels, dentists' drills; B titanium: strong, doesn't react with other substances, light, resistant to corrosion, artificial body joints, body piercings, propellers of ships, spectacle frames; C petroleum: made up of hydrogen and carbon, made up of molecules of different masses, plastics, asphalt in road-making, pesticides, fuel for cars.

2.2

The text classifies them according to the three natural resources described, method 2 in 2.1 above.

2.3

Resource	Properties	Products
Titanium	light, strong, hard resistant to corrosion doesn't react with other substances good cover – in alloys	spectacle frames propellers of ships, components for desalination plants replacement body joints, piercings paint, toothpaste jet plane components, golf clubs, bicycles, lab. equipment, wedding rings, laptop computers
Diamond	resistant to corrosion hard transparent	cutting knives and surgeons' scalpels, dentists' drills cutting tools in automated processes jewellery
Petroleum	hydrocarbon – low b.p. – ignite easily high b.p. – doesn't flow or ignite easily	petrol for cars, bottled gas fuel for ships, asphalt, plastics, pesticides, waterpipes, insulation on electricity cables.

2.4

Students opinions.

2.5

(*Answers that depend on students' opinions.) 1. Football is more popular than tennis in this country. 2. *English is easier to learn than Japanese. 3. Sudan is bigger than Kenya. 4. Russia is not as rich as the USA. 5. *Swimming is not as dangerous as horse-riding. 6. A horse is not as fast as a cheetah. 7. (If you count only the city, not Greater Lisbon) The population of Lisbon is not as great as the population of Maputo. (If you count the population of Greater Lisbon) the population of Lisbon is greater than the population of Maputo. 8. *A computer is more useful than a pencil. 9. The average temperature in Pemba is higher than the average temperature in Lichinga. 10. *Maths is more interesting than History.

3.1

1. It's about natural resources, running out of them, wasting them and saving them. 2 and 3. Depend on student's opinion.

3.2

1.B/C; 2.A; 3.C; 4.A; 5.C; 6.A

3.3

trees, fish / Petroleum / "don't cut down too many of them", "species goes extinct" / Aluminium cans, paper, bottles

3.4 (Renewable = R/Non-renewable = NR)

forests-R; fish-R; coal-NR; oil-NR; natural gas-NR; water-R; minerals-NR; petroleum-NR; silver-NR; titanium-NR; herbs-R

3.5

1F; 2C; 3A; 4E; 5D; 6B

Different answers are possible, e.g. 1. I shouldn't have eaten it. 2. They should win easily. 3. People should drive more carefully. 4. You should give up smoking. 5. We should have left home earlier. 6. The government should hire more police.

2: THE ENVIRONMENT

Pre-focus

napkin-2 to 4 weeks; match-6 months; newspaper-1 year; cigarette end-2 years; plastic cup-50 years; plastic bottle-400 years; fishing line-650 years; aluminium can-undegradable; glass-undetermined time

1.1

global warming; unleaded petrol; carbon dioxide emissions; environmental disaster; climate change; fossil fuels; biodegradable packaging; hydroelectric schemes; green party; developing countries; solar energy; recycling bins; toxic waste

1. solar power 2. recycling bins 3. toxic waste 4. green party 5. biodegradable packaging

1.2

1. T 2. T 3. F 4. T 5. F 6. F 7. T 8. F

1.4

Effects of climate change: Rise in sea level; damage to corals; less rainfall in some places; more tropical storms; melting of glaciers; extinction of some species; decrease in number of polar bears; spread of disease; hotter weather; worse flooding in some parts of the world

1.7 Other answers are also possible

1. A rise in the level of the sea is caused by the melting of the glaciers. 2. The burning of fossil fuels leads to global warming. 3. Severe drought results from global warming. 4. Weather pattern changes are the result of climate change. 5. A rise in the temperature of the sea results in damage to corals. 6. Bleaching of corals is caused by a rise in the temperature of the sea.

2.1

1. Forests cover about 30% of world's surface – rainforests used to be 14% now 6%.

2. 24.6% of Mozambique is forested (about 19,262,000 ha).

3. They absorb CO₂ and produce O₂, anchor soils, prevent erosion, regulate water flow, modify climate, cool air, provide habitat for plants, animals and microorganisms.

2.2

Notes on deforestation

I Definition: the disappearance or loss of the natural forests on our planet.

II Causes:

1. cutting down for timber; uses a) fuel b) charcoal burning c) paper industry d) making furniture
2. for extractive industries to take place; e.g. mining
3. slash and burn policy; used by many farmers; in order to clear land for farming

III Effects:

1. soil erosion → a) flooding
→ b) drought
→ c) loss of wildlife
2. increase of level of CO₂ in atmosphere
→ a) greenhouse effect
→ b) global warming

2.4

Introduction: Today I'm going to talk about...

Definition: Let's start with a definition of the team.

Reasons: Point 1: Firstly, ...

Point 2: Secondly, ...

Point 3: There is a third, ...

Effects: Point 1: Now, let's move on to, ...

Point 2: The second... is...

Conclusion: So, in conclusion I would just like to say...

2.5

In these cases deforestation results; with the result that the farmers have to move on; but it can lead to deforestation; This is caused when there are no trees; it can lead to flooding; the biodiversity of the ecosystem is affected; it leads to an increase in the level of carbon dioxide; causes global warming to take place; this in turn is having a dramatic effect on our atmosphere and planet.

2.6

The trees may be felled so that extractive industries such as mining can take place. It is done so that the land can be farmed for a few years. The vegetation is cut down and burned in order to make space. (...) if no new trees are planted to replace the old ones. (...) that is used for clearing natural vegetation. (...) the farmers have to move on elsewhere to find new, more fertile soil.

2.7

1. so/so that 2. to 3. to 4. to/in order to 5. to/in order to 6. so/so that 7. to 8. so/so that

2.8

-tion	-ment	-ance	-ing
pollution	development	disappearance	recycling
erosion	improvement	resistance	flooding
prevention	management		bleaching
regeneration	treatment		melting
destruction	commitment		
protection			
conservation			
organization			
cultivation			

1. erosion 2. pollutes 3. recycle 4. organizations; commitment; protection 5. development 6. prevented

2.9

erosion; improvement; destruction; resistance; regeneration; assistance; disappearance; recycling; protection

3.1

What'll you do if you get good results in the exams? Well, if I pass all my exams, I'll go to University. / I'd really love to be a civil / engineer, if I had the chance. / But, if I don't get the grades, I suppose I'll have to do something else, / my Dad says he'll buy me a sports car and send me on holiday to South Africa, if I get good grades. / I'll have to get a job in the holidays if I want to finish school next year. / If I had a rich Dad, I wouldn't need to go to school any more! / If you found one, you wouldn't have to get a job, would you!; If I was good enough, I would become a famous footballer and earn lots of money that way. / And then I would give money to those who need it too. / I might look for a job in a company if I can find someone who will give me a job, or join the Navy.

Well, I think I may try to study law; I might look for a job in a company.

3.2

- What would you do if you found some money in the street?
- What would you do if you pass your final exams?
- What would you do if you won a lot of money?
- What would you do if you got a job in South Africa?
- What will you do if you meet your friends to night?
- What will you do if you have a day of this month?
- What will you do if you speak excellent English?
- What would you do if you saw a robbery?

3.3

Open-ended answers.

UNIT 3: SPORT

Pre-focus

Answers depend on students' opinions, but must be supported by good reasoning.

1.1

TEXTS FOR READING ALOUD

Text 1

This can be an individual sport or a team sport. If it is played as a team sport, the teams are very small. The game is played with a ball. The ball is sometimes hit very hard, and sometimes quite softly. The players are not allowed to kick the ball or use any part of their body. The playing area is marked with lines, and the players face each other. Their objective is to keep the ball inside the lines when they hit it, but at the same time to try to hit the ball in such a way that their opponent either cannot reach the ball to hit it back, or alternatively fails to hit it back within the marked area. Each player has a special piece of equipment which is used for hitting the ball. There is an obstruction across the middle of the playing area nearly a metre high, over which the ball is hit in both directions.

Text 2

This is usually an individual sport. It is played against one other person, although sometimes four people play together in teams of two. A small hard ball is used, and each player has a set of special pieces of equipment with which to hit the ball. Unlike the sport in the first text, the ball is not moving when the players hit it. The ball is hit long distances, and may sometimes even be lost. The players have to try to hit the ball into a hole. Then when each player or all the players have succeeded, they move on to the next part of the playing area and repeat the process. The player who needs to hit the ball the least number of times wins the game.

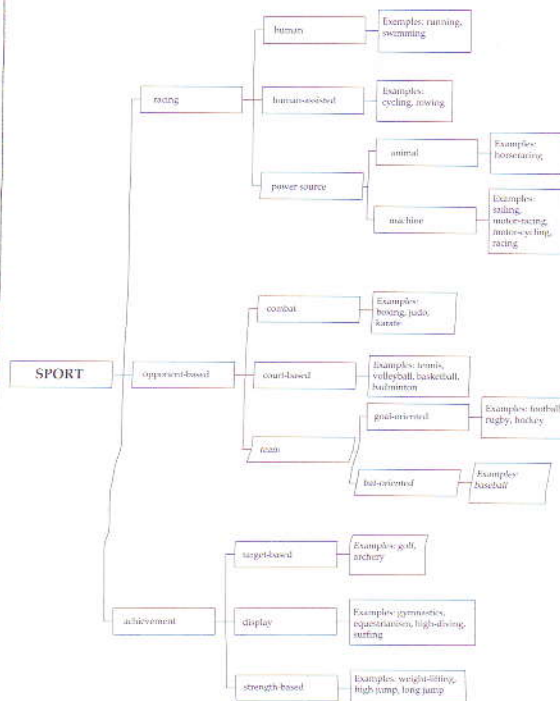
Text 3

This is a team sport. It is played with a large ball, sometimes indoors and sometimes outside. The game is played on a marked area, and the objective is to make the ball hit the ground inside their opponents marked area, while at the same time trying to prevent their opponents from doing the same to them. There are usually six players in each team. If the ball touches the ground inside your area, the team loses the point. When a team wins fifteen points, it wins the game. The players do not use any special equipment to hit the ball. They use their hands. There is a high obstruction across the middle of the playing area, and the ball must pass over this. The players have to jump high to hit the ball as hard as possible and score points.

1.1

Text 1 – tennis; Text 2 – golf; Text 3 – volleyball.

1.3



Golf could be target-based achievement; basketball could be court-based opponent-based, or maybe goal-oriented, team opponent-based; surfing could be display achievement; fencing is probably combat opponent-based. As the classification system is not definitive, these are tentative answers, and students could argue for other classifications.

1.4

The missing word is «which». 1. In football, each player tries to get the ball into their opponents' net, which is four metres wide and two metres high. 2. Each tennis player hits the ball with a racket, which consists of a strong frame and strings. 3. In golf, the players have to get their ball into the hole, which is nearly eleven centimetres in diameter. 4. Gymnastics, which we have classified as a display sport, can take various forms. 5. Volleyball, which an American doctor invented in 1895, is played between two teams of six players on a court. 6. Volleyball players hit the ball over the net, which is across the middle of the court. 7. In rugby, there are two high goal posts, between which the players must kick the ball. 8. At the end of the long jump, there is a sandbox, into which the athlete jumps.

1.5

1.F; 2.T; 3.T; 4.F; 5.T; 6.T; 7.F; 8.F; 9.F; 10.F

1.6

A1-B8-C3 / A2-B5-C7 / A3-B7-C1 / A4-B2-C6 / A5-B6-C9 / A6-B3-C4 / A7-B1-C2 / A8-B9-C8 / A9-B4-C5

2.1

Part B A – Carl Fogarty; B – Monica Seles; C – Arash Miresmaeili; D – Prince Naseem Hamed; E – Ben Johnson

2.2

1.E; 2.A; 3.E; 4.CD; 5.A; 6.D; 7.BE; 8.BCDE; 9.E; 10.C; 11.B; 12.A; 13.D; 14.AB

2.3

1.E; 2.C; 3.A; 4.B; 5.A; 6.C; 7.D; 8.E; 9.B; 10.A; 11.B; 12.A; 13.D; 14.E; 15.E; 16.A; 17.D; 18.E

pass 1, passed 1; open 2, opened 2; wait 1, waited 2; parade 2, paraded 3; like 1, liked 1

When the basic form ends in T or D sound, the past tense is pronounced with an extra syllable, otherwise you wouldn't be able to hear it.

Put an extra syllable on Numbers 1, 6, 7, 8, 14, 15, 17, 18

2.4

1. How fast did Carl Fogarty drive around the TT circuit? 2. How many times did Carl Fogarty win the world title? 3. When did Carl Fogarty have a very bad accident? 4. Where was Monica Seles born? 5. Why did Monica Seles move to the USA? 6. When was Monica stabbed? 7. How long was the knife? 8. Why did Arash Miresmaeili refuse to fight Vaks? 9. Why wasn't Vaks happy? / Why was Vaks not happy? 10. How long did Prince Naseem Hamed stay out of boxing? 11. What did Hamed do while he was in retirement? 12. Why did Hamed refuse to fight Khan? 13. How long was Naseem Hamed World Champion? 14. When / How long ago did Hamed lose the title? 15. When did Ben Johnson emigrate to Canada? 16. When did Ben first beat Lewis? 17. When did Ben Johnson become the fastest man on Earth? 18. Did Ben tell the truth about the steroids (at first)?

2.5

There are different answers depending on the student's point of view. Some possibilities:

1. If my government told me not to take part because of my opponent's religion, I would accept their decision. 2. If doctors told me I had to stop competing, I would not take any notice. 3. If I started losing more than winning, I would practise harder and train more, so that I could get back to my previous standard. 4. If I started receiving letters threatening me and my family I would go to the police. 5. If I was offered a lot of money to lose a race, I would take it immediately! 6. If my team had to tour a country which did not allow black people to play, I would refuse to join the team.

UNIT 4: AFRICAN NATIONS CHAMPIONSHIPS

1.1

a) 6 months b) 16 c) every 2 years d) they take it in turns e) Mali

1.2

1. stuck to 2. a way of reducing the number of teams 3. a group of games 4. first / main 5. held the games in their country

1.3

1 - South Africa; 2 - Zambia; 3 - Democratic Republic of the Congo; 4 - Cameroon; 5 - Nigeria; 6 - Senegal; 7 - Mali; 8 - Algeria; 9 - Morocco; 10 - Tunisia; 11 - Egypt; 12 - Togo; 13 - Ghana; 14 - Ivory Coast; 15 - Liberia; 16 - Burkina Faso

b) West Africa - French + Belgian influence - football.

c) East Africa - British influence - cricket.

1.4

1. exciting 2. match / game 3. final whistle 4. a draw 5. scored 6. disappointment / dismay 7. missed

1.5

1. How long did the African championship last? 2. How many people listened to and watched it? 3. Who won? 4. Who did they defeat? 5. Who missed his penalty? 6. How did he feel?

Subject questions - 2, 3, 5

Object questions - 1, 4, 6

3. What did Dulce say? 4. Who does that car belong to? 5. What happened? 6. Who saw the accident? 7. Who did the teacher see in his room? 8. What did you find on the floor?

1. What did your father buy? 2. What / Who leaves the airport at 10.00? 3. Where are you going this weekend? What are you going to do this weekend? 4. What time does the basketball game start? 5. Who won the match on Saturday? 6. Who drives his kids to school every day? 7. Where did your family go on holiday last year?

1.7

Script for Unit 4 Exercise 1, Part B

In 1990 the 17th edition of the African Nations Cup took place. It was hosted by Algeria.

There were 8 teams involved in the tournament.

They were in 2 groups.

Algeria won the final.

They beat Nigeria 1-0.

In 1994 the 19th edition of the African Nations Cup took place. It was hosted by Tunisia.

There were 12 teams involved in the tournament.

They were in 3 groups.

Nigeria won the final.

They beat Zambia 2-1.

year	edition	host	n.º of teams	n.º of groups	winner	loser	score
1990	17 th	Algeria	8	2	Algeria	Nigeria	1-0
1994	19 th	Tunisia	12	3	Nigeria	Zambia	2-1
1998	21 st	Burkina Faso	16	4	Egypt	S. Africa	2-0
2000	22 nd	Nigeria & Ghana	16	4	Cameroon	Nigeria	4-3
2002	23 rd	Mali	16	4	Cameroon	Senegal	3-2
2004	24 th	Tunisia	16	4	Tunisia	Morocco	2-1
2006	25 th	Egypt	16	4			

1.8

1. Where did the match take place? 2. Who was the match between? 3. How many people watched the match in the stadium? 4. Who scored the goals? 5. How many goals did team A score? 6. How many goals did team B score? 7. Was it a good match? 8. Was anyone injured? 9. What was the score at half-time? 10. Who won the match?

2.2 (Other answers possible)

2. Her family allow her to play football 3. Change to athletics 4. Move to the USA 5. Lurdes' coach 6. Her daily schedule 7. Her diet 8. Her leisure activities 9. Her successes 10. Her role outside athletics

2.3

1. c 2. a 3. a 4. d 5. b 6. d 7. d

2.4

1. parental pressure - sport is a waste of time 2. sexual discrimination - male-dominated football world 3. intensive training 4. lack of competition at home - had to go abroad 5. absent coach - training by fax 6. hard schedule for training 7. rigid diet 8. little leisure time 9. injuries

2.5

1. Her father was so impressed by her performance(...) 2. The team was later disqualified. 3. She was persuaded to continue as she showed immense potential. 4. She was offered a scholarship to go to(...) 5. She was awarded the IAAF Golden League million-dollar jackpot.

2.6

1. in 2. While 3. at the age 4. then 5. next 6. for 7. while 8. During the time 9. before 10. then, subsequently 11. During that time 12. ever since 13. One day 14. then / at that time

UNIT 5: LITERATURE

1.1

1. C; 2. H, 3. F; 4. D; 5. A; 6. G; 7. B; 8. E

1.2

A – suspense / thriller; B – ghost story; C – Love Story / Romance; D – science fiction; E – Horror; F – Love Story / Romance

1.3

1. filled 2. put a lot of water 3. the thing that comes out of a gun 4. a part of the face 5. make a loud noise 6. see something on the floor 7. a part of the car; moved

1. a passenger 2. over sea 3. bad 4. not a good view 5. with difficulty 6. it left immediately

1.4

Different answers are possible.

GROUP 1: 2. After playing well all season, the team reached the final. 3. After talking to them for twenty minutes, Josué persuaded them to do as he wanted. Before Josué persuaded the team to do as he wanted, he talked to them for twenty minutes. 4. Before setting off on his three-hundred kilometre journey, Pedro filled up the tank. / After filling up the tank, Pedro set off on his three hundred-kilometre journey. 5. After checking the mailbox, Dulce opened the front door. / Dulce checked the mailbox before opening the front door.

GROUP 2: 1. Cledson took five driving lessons before passing his driving test. / After taking five driving lessons, Cledson passed his driving test. 2. After seeing the accident, Edgar phoned for an ambulance. 3. Raima cleaned her teeth before going to bed. / After cleaning her teeth, Raima went to bed. 4. After playing cards all evening, they left about midnight. / They played cards all evening before leaving at midnight. 5. After feeding the dogs, António took them for a walk. / António fed the dogs before taking them for a walk.

GROUP 3: 1. Marta ate her dinner while watching TV. / Marta watched TV while eating her dinner. 2. While waiting for Dulce, they had a beer and talked. 3. Chica did her homework while listening to music. / Chica listened to music while doing her homework. 4. Arturo drank his coffee while watching the crowds carefully. / Arturo watched the crowds carefully while drinking his coffee. 5. Miguel sang happily while washing his car. / Miguel washed his car while singing happily.

Many different possibilities for the paragraph. One example: Matthew woke up at 5.30 in an empty house. He and Anna had had a terrible argument about something silly the night before, and she had left the house at ten o'clock and hadn't come back. Matthew smoked his first cigarette while lying thinking about the night before. Then he had a long shower, and then put on the same clothes as the day before. He went into the kitchen. The remains of last night's dinner were still on the table, and a little (but only a little) in the bottom of the bottle of whisky. After looking at his phone for a couple of minutes, Matthew

picked it up. He quickly drank down the rest of the whisky to give himself courage and then he dialled Anna's mobile number, but there was no answer. He got up. While clearing the table, he formulated a plan. Then he went to the drawer where he kept his gun. After checking it was loaded, he put it in his pocket. Then he sat down on the sofa and closed his eyes.

1.5

1. a cold-blooded animal 2. a kind-hearted person 3. a five-hundred-page book 4. a well-behaved child 5. a densely-populated part of the country 6. a long-lasting peace 7. a hundred-year-old man 8. A two-door car 9. a forty-kilometre race 10. a part-time job 11. a full-time job 12. a two-day event 13. a non-stop train 14. a five-sided figure 15. Twentieth-century literature

1.7

1. tired 2. interested 3. surprised 4. exciting 5. surprising 6. confused 7. depressed 8. tiring 9. excited 10. interesting

UNIT 6: SCIENCE I – PEOPLE

Pre-focus

1. At the beginning of December

2. On December 25th – Christmas Day!

3. At about 19.30 on 31st January

4. At about 23.59 on 31st December

5. At about 23.59 and 59 seconds – the last second before midnight!

1.1

Yes, the text agrees with Professor Dawkins' statement.

D-A-C-F-E-B

1.2

TEXT FOR READING ALOUD

One of the most controversial topics in paleoanthropology focuses on the origins of modern humans. About a hundred thousand years ago, the Old World was inhabited by various groups of hominids. The Neanderthals occupied Europe, other kinds lived in Asia and the Far East. These were different species; they had different shaped bodies, and different habits and behaviour. However, by about thirty thousand years ago, all humans seemed to have evolved into one kind, both in shape and in behaviour. How did this happen? The two theories are called the Multi-Regional theory, and the Out of Africa theory.

The multi-regional theory says that all living humans today evolved from the species *Homo erectus*, which left Africa about two million years ago. All the different kinds evolved smoothly and gradually into modern man. Today we have different races of humans, and the multi-regional model explains this by saying that the early humans evolved in slightly different ways according to the demands of their climate and environment.

The Out of Africa theory says that modern man evolved in Africa fairly recently, and then spread out into Europe and Asia, replacing all the populations that were descended from *Homo erectus*. It is difficult to solve this problem only by reference to fossils, because it is possible to interpret them in so many ways. But recently scientists have turned to genetic studies. It seems that by analysing the DNA of fossils, it is possible to work out the genetic histories and relationships of whole groups of people. According to this evidence, there was no genetic connection between the Neanderthals and modern humans. It supports the idea that a small population of *Homo sapiens*, numbering perhaps only ten thousand to fifty thousand people, left Africa somewhere between fifty thousand and a hundred thousand years ago, and came to dominate the rest of the world.

1. Repeated information: Upright Man (*Homo erectus*) spread from Africa to the rest of the world. / Neanderthals were the variety of Upright Man that evolved in Europe. / These species were replaced by another. / Two theories to explain this phase of evolution: a) Modern man evolved from Neanderthals and other species; b) A new species left Africa in a second wave. 2. Multi-regional theory and Out-of-Africa theory. 3. Out-of-Africa theory is now considered correct. 4. Genetic studies – the comparative analysis of the DNA of Neanderthals and Modern Man.

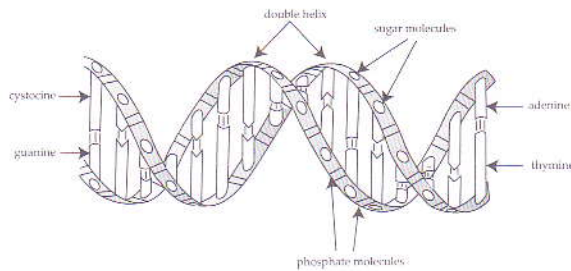
1.3

2. What had unexpected consequences somewhere? Where did it have unexpected consequences? 3. What gradually turned into something else? What did it turn into? 4. What started changing into something else? What did it start changing into? 5. Who became better adapted to something? What did they become better adapted to? 6. What became more suited to something? What did it become more suited to? 7. What changed, becoming twice as big? 8. Who was the dividing line between apes and men? 9. Whose numbers increased? 10. Who spread out of Africa? What / Who did they develop into? 11. Who evolved out of someone else? Who did they evolve out of? 12. Who overcame someone else? Who did they overcome? 13. Who went extinct?

1.4

1E; 2G; 3J; 4A; 5I; 6B; 7D; 8F; 9C; 10H

1.5



(The labels can appear in various places on the diagram, but the sugar molecule arrow must point to one of the "circles" on the helix, and the phosphate molecule arrow to one of the white "rectangles". Similarly, guanine must appear at the other end of cystocine, and thymine at the other end of adenine.)

1.6

abbreviate, abbreviation, achieve, achievement, adapt, adaptation, agree, agreement, analyse, analysis, behave, behaviour, combine, combination, connect, connection, define, definition, describe, description, develop, development, disagree, disagreement, discover, discovery, dominate, domination, establish, establishment, evolve, evolution, explain, explanation, focus, focus, generate, generation, identify, identification, improve, improvement, increase, increase, interpret, interpretation, manipulate, manipulation, occupy, occupation, oppose, opposition, originate, origin, refer, reference, replace, replacement, reproduce, reproduction, solve, solution

2.1

1. F-there are 46 chromosomes, 23 pairs, in every cell 2. F-we have 23 pairs, i.e. 46 chromosomes, in each cell 3. T 4. T 5. T 6. T 7. F-the female egg contains genes from the woman's mother AND father 8. T; 9. T; 10. T

2.2

Top line, left to right: António, Chica. Second line: Cledson, Dulce, Edgar. Third line: Ovidia, Edmilson, Jacinta, Pedro, João, Maria. Bottom line: Josué, Manuel, Vanda, Raíma, Titos, Marta.

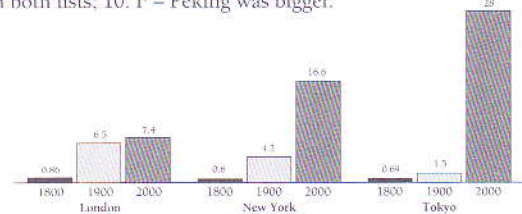
Different answers are possible. Suggestions:

2. she is João's mother's mother; 3. Josué is their daughter's son's son; 4. António is her father's mother's father; 5. he is her mother's second husband; 6. Raíma's mother is Vanda's father's sister; 7. she is his father's sister; 8. they are her mother and father; 9. they have the same mother but different fathers; 10. he is her daughter's husband; 11. he is her brother's son; 12. they are her father's sister and brother-in-law.

Edmilson and Jacinta; Titos and Marta; Edgar and João; the same

2.4

1. T; 2. T; 3. T; 4. F – they're not even mentioned in 1800; 5. T; 6. T – Tokyo; 7. T; 8. F; 9. F – New York and Tokyo appear in both lists; 10. F – Peking was bigger.



There are three groups because the growth of three cities is compared at three times. Each group represents one city at three times.

1. The purpose of the study was to study the intelligence of 11-year-old children; 2. The height of each column shows the number of children in that category of intelligence; 3. Intelligence quotient (IQ) is shown on the vertical axis; 4. About 1220. To get this total, we add the numbers of all 12 bars; We don't know the exact number because figures are not given, only a visual impression. 5. About 250 children had an average IQ (between 98 and 107); 6. Between 158 and 167; 7. The two numbers represent the range of IQ, i.e. the lowest and the highest IQs of the children in that category; 8. No, age is not a variable. All the children are 11 years old; 9. Between 49 and 57; 10. No

UNIT 7: SCIENCE – TECHNOLOGY

Pre-focus

a machine; a lever; a computer; matter; a DVD; a mouse; a helicopter

1.1

TEXT FOR READING ALOUD: A physics teacher once walked into his classroom for the beginning of the lesson. He was getting his things ready on his desk when he noticed that one of the pupils had his head down on his table and looked very unhappy. "I hope he's all right," thought the teacher, and called out to him: "John, what's the matter?" Poor John lifted his head and wiped some tears from his eyes. Because he was in a physics lesson, he answered: "Sir, matter is anything which has mass and occupies space."

This is an example of confusion between a word as it used in its everyday sense and its specific scientific sense. In everyday English, "What's the matter?" means "What's the problem?", but in scientific language, John was quite right; matter is anything which has mass and occupies space.

Another example of a word like this is "machine". What comes into your mind if someone says "machine". I think most of us would think of something powered by electricity or petrol, such as an electric drill, or a petrol-driven chain saw for cutting down trees, or a machine for digging holes in the road. All these things are definitely machines, and there are thousands of different kinds. We understand by "machine" anything which saves us work, or does our work for us.

However, in physics, the definition is more precise: a machine is any device which enables a force acting at one point – the effort – to overcome another force acting at some other point – the load. It does not save us work, and it does not do the work for us, but it makes the work easier in some way. Many things that we would not normally consider machines at all in the general sense, are in fact simple machines in this sense of the word. They are all variations on a few simple themes: levers, pulleys and inclined planes.

1c; 2a; 3c; 4c; 5b; 6c; 7d; 8b; 9a

1.2

Diagrams from top: A – Type 3; B – Type 1; C – Type 2.

Top diagram, left to right : Load, effort, fulcrum; Middle diagram: load, fulcrum, effort; Bottom diagram: fulcrum, load, effort. scissors, and lid – type 1; wheelbarrow, bottle opener – type 2; fishing rod and arm – type 3

1.3

1. into 2. from 3. downwards 4. between 5. at; at 6. close; from 7. upwards 8. bottom 9. in, from; to 10. to 11. upwards; over; down 12. above 13. from 14. onto 15. downwards; up 16. towards 17. off 18. through; into

Expressions of location in numbers 4; 5; 6; 8; 9; 10; 12; 13; Expressions of directions in numbers 1; 2; 3; 7; 11; 14; 15; 16; 17; 18

1. up 2. at 3. between 4. Next to 5. through 6. in/into 7. off 8. from 9. across 10. over

1.4

("which" or "that" can be used interchangeably) A wheelbarrow is a device which is used for carrying heavy loads. / A bottle opener is a device which is used for removing the top from bottles. / A pair of scissors is a device which is used for cutting paper and other material. / A fishing rod is a device which is used for catching fish without getting your feet wet. / An electric drill is a tool which is used for making holes of a fixed diameter in wood, metal and so on. / A chain saw is a tool which is used for cutting down trees or for cutting up large pieces of wood. / A pneumatic drill is a device which is used for making holes in the road for the purpose of maintenance, repairs etc. / a type 2 lever is a lever which has the load between the effort and the fulcrum. / A machine is a device which enables a force acting at one point to overcome another force acting at some other point. / A mousetrap is a device which is used for killing small rodents.

a candle; a ruler; a hammer

2.1

He's probably going to say something like: "...you could buy me a DVD player!"

reactionary / progressive; forward-looking / backward-looking; up-to-date / out-of-date; ignorant / scientifically literate; old-fashioned / modern

Other answers depend on students' opinions and ideas.

2.2

It supports Billy's point of view.

DVD has superior quality; digital is becoming more common;

DVD players are not so expensive. Other answers depend on students' opinions and ideas.

1. Dixons is a chain of shops; 2. Seven times as many; 3. In the 1990s. 4. 26 years; 5. A big chain store has stopped selling VCRs – they are becoming obsolete.

2.3

Similarities: Both sit in living room, both connect to TV, both have same basic buttons on the front, both used to watch pictures. Differences: VCR is analogue, DVD is digital; VCR uses tape, DVD uses disk; tapes deteriorate with age, DVDs do not; tape copies are inferior to the original, digital copies maintain the same quality.

2.4

1 – D. 2 – E. 3 – G. 4 – F. 5 – H. 6 – A. 7 – K. 8 – J. 9 – I. 10 – B. 11 – C.

3.1

1. Tony is a writer on a computer magazine. 2. An email. 3. On the letters page of the magazine. 4. A reader, Sam, wrote it because he wanted to make a suggestion. 5. Quite old, 50 or more, because there were no computers when he went to school. 6. Informal. 7. A positive effect – Tony will think it an interesting idea. 8. No.

1. Comfortable when using technology, but not comfortable with the theory, or when something goes wrong. 2. He or she depends on computers a lot, and uses them a lot. 3. He / she compares himself / herself to a truck driver who can drive but can't maintain his truck. 4. He wouldn't recognize a graphics card even if he was looking directly at one. It is a funny way of saying it. 5. No, we're not, e.g "go to sleep". 6. The writer maybe thinks it's humiliating when children know more than him. 7. The past. 8. No, he answered in the magazine. 9. It's an informal, friendly style. 10. Sam's suggestion is accepted, starting from next month. 11 and 12. (Depend on students' ideas.)

UNIT 8: ENERGY

Pre-focus

Suggestions: you walk – energy comes from food; you cook lunch – energy comes from wood, electricity; you play football – energy comes from food; you watch TV – energy comes from electricity; you catch a bus – energy comes from petrol, etc.

1.1

1. F 2. T 3. T 4. F 5. F

1.2

1. provides 2. combines 3. is released 4. obtain 5. is converted 6. is needed 7. varies

1.3

1. We use half as much energy when we are sleeping as when we are using the computer.
2. We use a lot less energy when we are sitting reading than when we are swimming.
3. We use the least energy when we are sleeping.
4. We use twice as much energy when we are doing hard physical work as when we are walking slowly.
5. We use a lot more energy when we are walking upstairs than when we are sleeping.
6. We use slightly more energy when we are using the computer than when we are sitting reading.

1.4

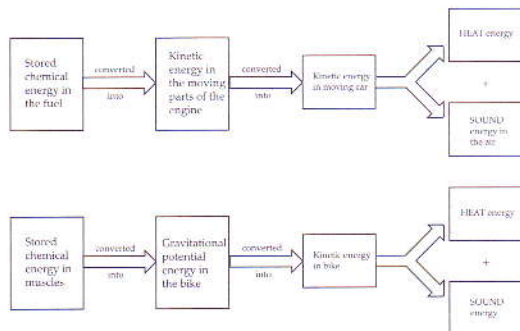
1. The total energy on Earth is always the same, we will never run out of it.
2. It would take more energy than the fuels provide if we try to recreate them.
3. They have to be converted again from heat or kinetic energy into electricity.
4. Power plants convert the heat or kinetic energy into electricity.

1.5

1. e 2. f 3. a 4. c 5. b 6. d

1. do with 2. come up with 3. turn on 4. ran out of 5. come in 6. used up

1.6



1.7

potential energy nuclear energy chemical energy mechanical energy gravitational energy reservoir conservation combustion electricity machine

2.1

Coal; oil; natural gas; hydroelectricity; solar energy; wind energy

2.2

natural gas; wind; oil; coal; solar; sea; nuclear; wave.

2.3

1. twenty-nine
2. one thousand three hundred and eighty-five
3. twenty-five thousand six hundred and ninety-seven
4. six hundred and eighty-five thousand four hundred and thirteen
5. one million five hundred and forty thousand six hundred and eighty-five
6. sixteen per cent
7. four degrees Celsius
8. nineteen twenty-one
9. the third of January two thousand and four
10. seventy point three seven two

Student A

1. ninety-eight
2. eighty per cent
3. seventeen thousand six hundred and twenty-two
4. eighteen sixty-five
5. ten million four hundred and fifteen thousand three hundred and ninety-one
6. forty-five degrees Celsius
7. eighteen point three five nine
8. the twenty-second of August two thousand and one
9. three hundred and sixty-seven
10. five point one five

Student B

1. forty-five
2. the thirtieth of November nineteen ninety-eight
3. fourteen ninety-two
4. eighty-five thousand five hundred and seventy-two
5. thirteen per cent
6. six point two oh seven
7. eight hundred and eighteen
8. nineteen degrees Celsius
9. twenty-five million one hundred and nineteen thousand nine hundred and twenty-eight
10. three thousand three hundred and thirty-three

2.4 Script

Natural Gas (billion cubic feet)

Countries	Production, 2003	Consumption, 2003	Reserves 1/1/2005
Angola	25.43	25.43	1,620
Democratic Republic of Congo	0.00	0.00	35
Mozambique	2.12	2.12	4,500
Namibia	0.00	0.00	2,200
South Africa	82.99	82.99	1
Tanzania	0.00	0.00	800
Zimbabwe	0.00	0.00	0.00

(This text is also the answer to 2.5)

There are at present three main countries producing natural gas in Southern Africa. South Africa produces the most, with a production of 82.99 billion cubic feet in 2003. Angola produces a lot less with a 2003 production of 25.43 billion cubic feet while Mozambique produced the least with a figure of 2.12 billion cubic feet. All three countries consumed the same amount as they produced so there were no exports in that year.

As far as reserves are concerned, there are two more countries, Democratic Republic of Congo and Namibia, which both have reserves in addition to the other three countries. Mozambique has the biggest reserves with a total of 4,500 billion cubic feet on 1/1/2005. Namibia is next with about half as much as Mozambique, 2,200 billion cubic feet. Angola has 1,620 billion cubic feet which is about twice as much as Tanzania with 800 billion cubic feet. Democratic Republic of Congo has a lot less with only 35 billion cubic feet whereas South Africa has the smallest reserves with only 1 billion cubic feet.

2.7 Solar box cookers

Drawbacks of burning wood	Benefits of solar box cookers	Method
shortage of firewood deforestation girls not educated smoke & pollution not hot enough to pasteurize drinking water	provide safe, clean drinking water reduce smoke cost little easy to make no pollution more time for children, growing food & educating	2 boxes one inside the other layer of newspaper between them dark bottom tray inside inner box heat-resistant plastic lid opens at an angle as a reflector aluminium foil on lid & inner box sunlight reflected onto dark pot

UNIT 9: HEALTH

Pre-focus

1. healthy diet
2. Access to health information
3. Work + stress
4. vaccines
5. pollution
6. clean water
7. drugs + condoms

2.5

Classification:

Insect borne – malaria, yellow fever (mosquito), sleeping sickness (tsetse fly), dengue fever

Food or waterborne – cholera, giardiasis, hepatitis A, polio, typhoid

Body fluids or sexual contact – HIV/AIDS, hepatitis B

Contact with infected person – measles, polio, TB, meningitis, diphtheria

2.6

HIV/AIDS	Hepatitis B
Cholera	Malaria
Diarrhoea	Typhoid
Hepatitis A	Measles
	Tuberculosis

2.7

1. impossible 2. uninterested 3. infrequent 4. unprepared 5. impolite 6. irregular 7. independent 8. inconvenient 9. improbable 10. unclean 11. irrelevant 12. unfriendly

UNIT 10: WATER

Pre-focus

(Only check these answers at the end of the Unit.)

1. b 2. b 3. d 4. a 5. c 6. d 7. a 8. a 9. b 10. d

1.2

1	The Sun heats the water in the sea and any other wet surfaces causing it to evaporate.
7	Clouds form.
2	Water is transpired from plants and trees and forms water vapour in the air.
10	Water moves from the rivers and lakes by gravity to the sea.
13	Waste water includes sewage and industrial outfall.
4	Rising air currents take the water vapour up into the atmosphere.
8	Precipitation such as rain falls to the ground from clouds.
5	The temperature decreases.
3	The water forms water vapour in the air.
33	Water from rivers and lakes form the chief natural sources of water for irrigating the crops, and domestic and industrial use.
6	The water vapour condenses.
9	Water collects in rivers and lakes.
12	Rivers and lakes are often convenient places to dump waste water.
14	Since sewage often contains the pathogens of such intestinal diseases as typhoid or cholera, its presence in water that is to be used for drinking or washing is a hazard to health.

1.3

Suggestion for text

The Sun heats the water in the sea and any other wet surfaces causing it to evaporate. At the same time water is transpired from plants and trees. It forms water vapour, which is taken up into the atmosphere by rising air currents. Here it condenses as the temperature decreases and clouds are formed. Then rain

falls from these clouds and collects in rivers and lakes before moving by gravity to the sea. This water in the rivers and lakes is the chief source for irrigating crops and for domestic and industrial use. However, they are also a convenient place to dump waste water, which includes sewage and industrial outfall. Since sewage often contains the pathogens of such intestinal diseases as typhoid or cholera, its presence in water that is to be used for drinking or washing is a hazard to health.

1.4

evaporation, transpiration, condensation, formation, precipitation, irrigation, dumping, sewage. Verbs: evaporate, transpire, condense, form, precipitate, irrigate, dump.

1.5

1. F 2. F 3. T 4. F 5. T 6. T 7. F 8. F

1.6

1. temperature – warm to hot; mild to warm; cooler; sultry and oppressive; a welcome drop in temperature; fairly sunny
2. wind – southeast trade winds – strong winds – tropical cyclones

3. rainfall – dry season; a single rainy season; belt of cloud and rain; wettest; annual rainfall; low; the driest areas, most of the rain falls; tropical cyclones; heavy rain; moist; particularly wet; high humidity

4. geographical location – in the extreme south; coastal lowlands; the interior plateau; the hills along the border with Malawi and Zimbabwe; southwards along the coast; farthest south; the highlands on the Malawi and Zimbabwe borders; the southeast coast between Beira and Maputo; the lowlands inland; the Zambesi valley; in the south, farther north; the coast of northern Mozambique; the mainland; east of Madagascar; the eastern side of; on the coast; in some lowland regions; over most of the country

1.7

1. for 2. during 3. during 4. for 5. during 6. during 7. for

1.8



1.9 Script

Good morning to all of you watching today. Here is the weather forecast for the country for the next twenty-four hours.

So, let's start in the south of the country around Maputo, where it's going to be a bit mixed today. It's going to start cloudy with a few sunny periods until this afternoon when we can expect heavy downpours. It'll clear up by this evening and we can expect a fine evening. Temperatures will rise during the day to about 27°C and fall overnight to 21°C. So, it'll be warm and humid all day.

Further north in Beira, at Sofala area, it's going to be a rainy day, with heavy showers for most of the day and only occasional sunny spells. The temperature will be slightly higher than in Maputo at about 29 °C during the day falling to 22 °C overnight. Humidity will be high especially during the morning.

Now, moving on to those of you in the west and inland in Tete province. Here, it'll be hotter during the day than in other areas of the country, with temperatures rising from 21°C overnight to 37 °C later in the heat of the day. Rainfall will be moderate with some heavy showers during the day and the humidity will be extremely high.

Moving on to the next part of the country...

1.9

<p>MAPUTO hot / warm / cool / cold wet / dry extremely high / high / low humidity sunny / cloudy showers and sunny periods / heavy rain day temperature: 27 °C night temperature: 21 °C</p>
<p>SOFALA hot / warm / cool / cold wet / dry extremely high / high / low humidity sunny / cloudy showers and sunny periods / heavy rain day temperature: 29 °C night temperature: 22 °C</p>
<p>TETE hot / warm / cool / cold wet / dry extremely high / high / low humidity sunny / cloudy showers and sunny periods / heavy rain day temperature: 37 °C night temperature: 21 °C</p>

Weather forecast probably in November.

2.1

Causes of water pollution; sewage; pesticides and insecticides; oil and gas leaks; radioactive fallout; chemical waste; animal waste; soluble industrial waste; household detergents

2.3

1. SEWAGE: presence of pathogenic organisms
2. DETERGENTS: foam produced difficult to destroy when mixed with water;
affects the oxygen supply of fish and animals; causes plants to grow and block rivers and lakes
3. FACTORIES: – ORGANIC WASTE: presence of pathogenic organisms
– CHEMICAL WASTE: extremely poisonous
4. FERTILIZERS: washed into spring water and rivers; may increase growth of algae
5. NUCLEAR WASTE: contaminates drinking water and crops

2.4

1. Sewage is a danger to our health owing to the presence of pathogenic organisms.
2. Modern detergents can pollute because of the foam being difficult to destroy.
3. Organic waste from factories is dangerous for our health since it contains pathogenic organisms.
4. Wastes from factory chemical processes can pollute owing to the fact that they are extremely poisonous.
5. Fertilizers can cause problems in filtration plants because they cause algae to grow.
6. Radioactive fallout can pollute as it gets into the drinking water and crop plants.

2.5

1. can be collected 2. can / may be taken 3. may urinate 4. may defaecate 5. can get 6. can be obtained 7. soaks 8. reaches 9. forms 10. is filtered 11. passes

2.7

1. Yes, they were. 2. The village did. 3. They could contribute money, farm produce or construction work. 4. The community did. 5. He / she educates the village about hygiene. 6. Either using a bucket or using a hand pump 7. Everyone does. 8. There are two pits. One is used at a time and the other is sealed to produce compost to put on the plants.

3.2 Correct texts

It was 8.00 in the morning on December 26th 2004. I was making breakfast for the children when I felt the ground shake for two to three minutes. About twenty minutes later there was another tremor. I thought it must be an earthquake and went down to the beach to see what was happening. All the people from the village were watching in amazement when we heard a loud roaring noise. Then, suddenly I saw an enormous wall of water about 30 m high, which was racing towards us. Everyone screamed, turned and ran as fast as they could inland, away from the wave. But it caught up with us and picked us up along with trees, cars, all kinds of debris. I managed to catch hold of a palm tree and clung on with all my strength as I saw people, houses, and boats carried past me and on inland.

b) text would be found in a novel.

3.3

- big: great; enormous; huge; immense
small: tiny
happy: ecstatic; delighted
unhappy: miserable; devastated; sad
surprised: astonished; amazed
angry: furious; cross
bad: dreadful; awful;
good: great; wonderful
- speak loudly: shout; scream
speak quietly: whisper
go fast: speed; race
go slowly: dawdle
take: snatch; grab
like: adore; love
don't like: despise; detest; hate

UNIT 11: LEISURE AND TOURISM

1.2

Benguerra	Kruger Park and Southern Mozambique	Maputo and Inhaca
most luxurious, oldest, most well-known, situated on Benguerra island, exclusive, sophisticated	slightly / cheaper, busier, safari park & beach, camping, 4-star hotel flexibility	cheaper, livelier, more exciting, busier, sightseeing, shopping, nightlife
11 thatched lodges, sea or forest views	animal spotting – lion, buffalo, leopard, rhino, elephant	range of accommodation
2 honeymoon suites	sightseeing, markets in Maputo	historical places, markets, nightlife – Latino music, live jazz
communal lounge, bar & restaurant	cashew forests, snorkelling, birdwatching, views of countryside	local specialities – matapa and rice, prawns in piri-piri sauce
seafood specialities – crayfish, crab & calamari	beach activities, swimming / snorkelling, scuba diving	boat trip to Inhaca, sunbathing, swimming, beach
laze on beach, go snorkelling & diving, sailing, fishing, birdwatching, walking to local village, dhow trip, jeep trip	eat local specialities, see local life	
luxury, peaceful, relaxing		

2.2

	Adjective	Comparative	Superlative
adjectives with one syllable	cheap old large clean/clear	cheaper older larger cleaner clearer	the cheapest the oldest the largest the cleanest the clearest
adjectives ending in "y"	busy lively	busier livelier	the busiest the liveliest
adjectives with more than one syllable	luxurious	more luxurious	the most luxurious
	expensive	more expensive	the most expensive
	idyllic	more idyllic	the most idyllic
	well-known	more well-known	the most well-known
	exclusive	more exclusive	the most exclusive
	sophisticated	more sophisticated	the most sophisticated
	adventurous	more adventurous	the most adventurous
	peaceful	more peaceful	the most peaceful
	relaxing	more relaxing	the most relaxing
	flexible	more flexible	the most flexible
	active	more active	the most active
	exciting	more exciting	the most exciting
	beautiful	more beautiful	the most beautiful
unpolluted	more unpolluted	the most unpolluted	

Person A: sailing, snorkelling, windsurfing, swimming, canoeing, scuba diving

Person B: reading, watching TV, watching movies

Person C: basketball, football, volleyball

Person D: going to concerts, chatting, playing cards, listening to music, dancing, watching movies, going to the theatre

1.3

Expressions from the texts

I can't stand anything to do with sports.

I'd rather lie on the sofa any day.

What I really enjoy most is getting totally involved in a great novel.

I'm particularly fond of all those popular soaps.

What do I like doing in my free time?

Personally, I'm not so keen on the kind of games where you're on your own.

You want to know how I like spending my free time?

There are so many things that I really enjoy doing.

I hate spending time on my own.

I spend a lot of the day sleeping in preparation for the good things in life.

I'm into every type of music.

1. at 2. designing 3. spends 4. favourite / best 5. free / spare / leisure 6. fond 7. would rather 8. sociable 9. favourite 10. going 11. snorkelling / scuba diving 12. on

1.4

Person A: active, energetic, fit, dynamic, healthy, co-ordinated

Person B: lazy, anti-social, thoughtful, quiet, boring

Person C: active, sociable, competitive, energetic, fit, gregarious, dynamic, healthy, co-ordinated, co-operative, friendly

Person D: sociable, musical, gregarious, dynamic, noisy, talkative, co-operative, friendly

2.1

Script

My presentation to you today gives information on three possible trips for tourists who are coming on holiday to Mozambique. The three holidays are all very different to cater for the tastes of different types of people.

First let's start with the most expensive but most idyllic holiday destination of anywhere. Benguerra is the most luxurious, oldest and most well-known of the lodges in Southern Mozambique. It is situated on Benguerra island one of the largest of the Bazaruto archipelago, and it has its own exclusive and sophisticated atmosphere. It is surrounded by kilometres of unspoilt sandy beaches, and the turquoise waters of the Indian Ocean to swim in.

You can choose to stay in one of the 11 thatched lodges with either a superb sea view or in the acacia forest inland. Or you could treat yourself to one of the two honeymoon suites. There is a communal lounge, bar and restaurant where you can have candle-lit dinners of excellent quality with seafood specialities such as crayfish, crab and calamari.

During the day you can laze on the beach or there are plenty of opportunities to go snorkelling or diving on the coral reefs, to go sailing or fishing, to do some bird watching or just to walk to the nearby villages and see the traditional way of life of the local people. For the more adventurous of you, there is a trip on a dhow or a day out off-road in a Land Rover jeep.

If you are looking for real luxury and the chance to get away from it all in a peaceful, relaxing setting you need look no further.

Now, let's move on to the next suggestion, which involves a slightly cheaper trip but a somewhat busier schedule. On this trip, you can combine the delights of a safari park with the relaxation of a beach holiday. You have the opportunity to go camping and then later to sample the pleasures of a more luxurious stay in a 4-star hotel. You need to be of a more flexible nature to enjoy this trip as there will inevitably be delays and detours.

Your itinerary starts with a flight into Johannesburg from where you travel overland to the Kruger Park in search of the "Big Five", lion, buffalo, leopard, rhino and elephant, as well as the other wildlife that inhabit this park. Most of the animal spotting takes place in the morning and early evening when the animals are more active, so you are free to relax in the heat of the day. Accommodation is provided at rest camps in the park.

The next port of call is Maputo where you can spend some time seeing the sights and exploring the markets and waterfront before driving on to Bilene. Here there is the chance to see forests of cashews and to take a trip on the coastal lagoon to do some bird watching and snorkelling. On we go through rural villages with splendid views, across the Limpopo river bridge into Gaza province, stopping in Maxixe for a night with a trip by dhow taxi across the bay to Inhambane in the morning.

The next two nights are spent literally camping on the beach at the remote beach resort of Morungulo where snorkelling and scuba diving are available at reasonable prices. Finally you have time to unwind from all the travelling in the sleepy fishing village of Vilanculos. You have another chance to enjoy the delights of the coral reef, to try out the local specialities and to see how the local inhabitants live.

Finally, if you are looking for something cheaper but a bit livelier and more exciting, then how about visiting Maputo. This is a great place for people who like a busier atmosphere, who would rather do some sightseeing and some shopping and have some nightlife.

There is a good choice of accommodation available ranging from the 5-star Hotel Polana to a couple of backpackers lodges in the heart of the city. These are small and cheap but perfectly clean.

During the day there are plenty of historical places to visit like the Portuguese fortress, the Mousinho de Albuquerque square and the beautiful train station built by Gustave Eiffel. There are great markets to see where you can try out the local specialities like matapa and rice. At night there is a thriving nightlife with great Latino music and live jazz and fabulous food such as prawns in piri-piri sauce in the local restaurants.

You can complete the perfect holiday with a trip to Inhaca Island by boat or by plane. The fare is only 50 dollars. Here you can relax at the recently renovated Inhaca Island Hotel and spend some time on the beaches nearby.

This is definitely the choice for those of you who prefer the activity, noise and bustle of the city combined with some days sunbathing and swimming in clear, unpolluted water.

2.3

Benguerra: 2, 3, 5

Kruger Park and Southern Mozambique: 3, 4, 5, 6

Maputo and Inhaca: 3, 4, 6, 7

2.4

lively – peaceful, dull, quiet, relaxing

luxurious – cheap

peaceful – lively, exciting, crowded, noisy, busy

polluted – clear

exciting – dull

cheap – expensive, luxurious

crowded – peaceful, quiet

dull – lively, exciting, adventurous

beautiful – ugly

dirty – clear

traditional – modern, old

rural – urban

old – new, modern

little-known – well-known

large – small

relaxing – exciting, busy, adventurous

unpolluted, unexciting, uncrowded, unpleasant, untraditional, inexpensive, unadventurous,

3.1

Depend on students' ideas.

3.2

Advantages – investment, profit, jobs

Disadvantages – pollution, destruction, built up taking away natural resources like water, profits and benefits don't reach locals, tourists see local culture only as entertainment.

3.3

Depend on student's ideas.

3.4

Answers depend on students' ideas. Some possibilities: less traffic / more teachers / more doctors / more football / comfortable seats / better signs / prevent pollution.

3.5

1st criterion: It's an important conservation project

2nd criterion: "are expected to benefit through...employment...", "employing, training and equipping wildlife guards from local communities".

3rd criterion: "the involvement of local communities", "a community fund to provide assets"

4th criterion: "guests will be encouraged to participate in conservation activities" (increase in cultural knowledge not mentioned)

5th criterion: "The numbers of visitors will be limited..."

6th criterion: ("will be paid for by luxury tourism")

7th criterion: "game drives and walking safaris", "scuba-dive, join marine wildlife expeditions", "cataloguing terrestrial and marine fauna and flora" etc.

3.6

1. D; 2. E; 3. B; 4. A; 5. F; 6. C

3.7

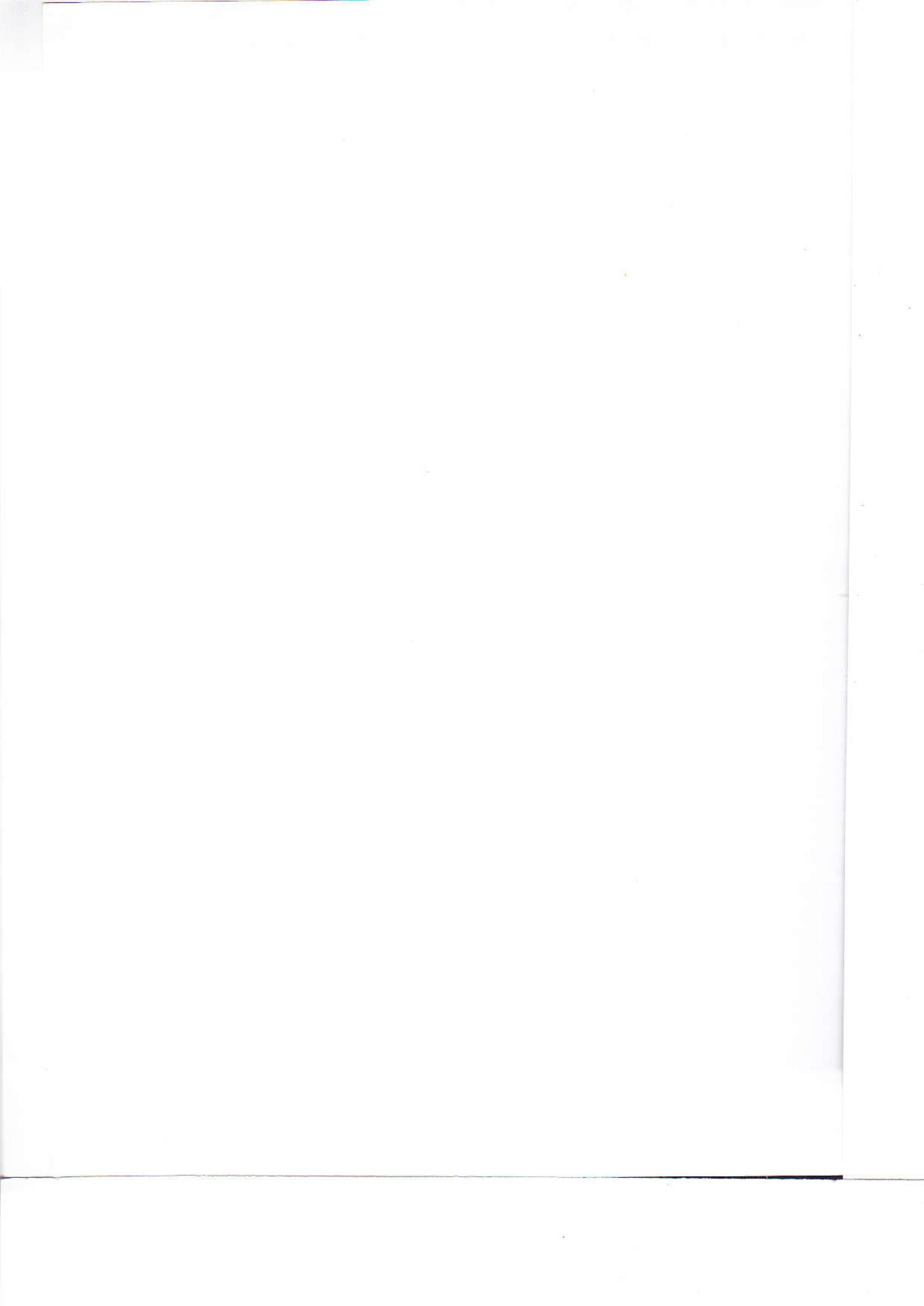
A. site, habitats, tourist destinations, resort, national parks, accommodation, facilities, (coral reefs)

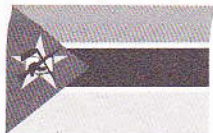
B. guests, guides, tour operators

C. scuba diving, deep-sea fishing, explore, safari,

D. plant life, shark, endangered species, turtles, wildlife, flora and fauna, biodiversity, coral reefs, whale, culture, sunshine, (national parks)

E. investment, foreign currency, profits





HINO NACIONAL

Pátria Amada

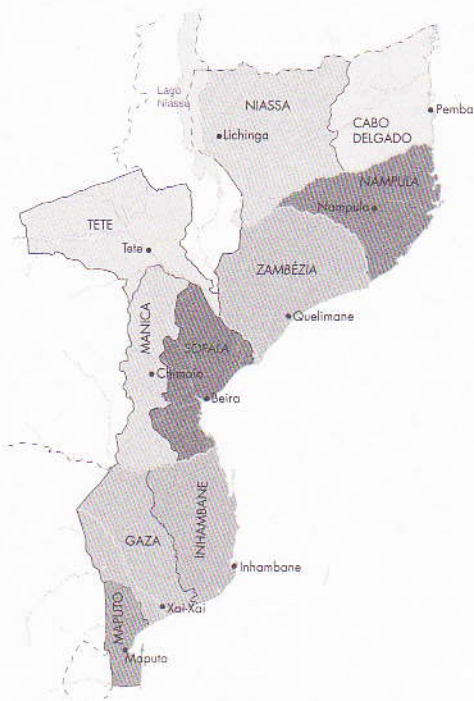
Na memória de África e do Mundo
Pátria bela dos que ousaram lutar
Moçambique o teu nome é liberdade
O sol de Junho para sempre brilhará.

Coro

Moçambique nossa terra gloriosa
Pedra a pedra construindo o novo dia
Milhões de braços, uma só força
Ó pátria amada vamos vencer.

Povo unido do Rovuma ao Maputo
Colhe os frutos do combate pela Paz
Cresce o sonho ondulado na Bandeira
E vai lavrando na certeza do amanhã.

Flores brotando do chão do teu suor
Pelos montes, pelos rios, pelo mar
Nós juramos por ti, ó Moçambique
Nenhum tirano nos irá escravizar.





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Publicações de referência para apoio ao ensino



Outros materiais para o Ensino Secundário

Química 8.ª Classe
Biologia 8.ª Classe
Matemática 8.ª Classe
Português 10.ª Classe
Matemática 10.ª Classe
Desenho 10.ª Classe
Física 10.ª Classe
Química 10.ª Classe
História 10.ª Classe
Geografia 10.ª Classe
Inglês 10.ª Classe
Português 11.ª Classe
Matemática 11.ª Classe
Química 11.ª Classe
Física 11.ª Classe
Português 12.ª Classe
Matemática 12.ª Classe
Física 12.ª Classe
Química 12.ª Classe
Inglês 12.ª Classe
Biologia 12.ª Classe
Filosofia 11.ª e 12.ª Classes

